Making Nutritious Diet More Affordable

Findings from the Cost of the Diet Study in West Singhbhum, Jharkhand, India

Acknowledgments

The Cost of Diet (CotD) assessment was led by Neha Santwani, Assistant Manager – Nutrition, under the technical guidance of Md Masud Rana, Nutrition Advisor, Save the Children, UK. Additionally, Dr Antaryami Dash, Head – Nutrition, Pranab Kumar Chanda, Head – Child Poverty and Dr. Sharmistha Das, Manager – Programme Impact (East Hub), at Save the Children India also provided technical support for the completion of the Cost of Diet Study. The study was funded by Save the Children India.

The Cost of Diet (CotD) field research team was: Atefh Ali, Field Investigators: Arti Khandait, Asha Kumari Pan, Bhola Purty, Bhuwan Chandra Gope, Dumbi Jarika, Minu Jarika, Raimat Tudo, Raina Rani Kaitwar, Rajendra Bodra, Rinki Boipai, Salhay Hansdah, Samudra Kumar, Purty Shiwani Sao, Somnath Sinku, Sukanti Gope, Turam Deogam and Vishal Nag (Data Entry Operator). Atefh Ali assisted in the overall coordination and supervision of data collection and entry under the guidance of Debashmita Bhaumik - Manager - Health & Nutrition (East). Rohit Oraon provided logistics support. The analysis and this report were written by Neha Santwani with contributions from Dr Antaryami Dash, Pranab Kumar Chanda and Dr Sharmishtha Das along with review and inputs from Dr Rajesh Khanna, Deputy Director - Health & Nutrition. The designing of the report was led by Soumi Halder, Manager- Campaigns and Communication (East).

Special thanks to Dr O P Singh, Chittapriyo Sadhu, Mahadev Hansda and Sanjay Kumar for extending implementation support for the successful conduction of this study. Thanks are due to Save the Children's Implementation Partners (IPs) in West Singhbhum for providing on the ground information necessary for planning, making the practical arrangements and their time during the data collection.

Finally, this analysis would not have been possible without the market traders of Chaibasa and Tonto Block in West Singhbhum District, who had willingly taken part in the assessment and of the women who participated in the Focus Group Discussions and individual interviews. Their time, hospitality and insights are much appreciated.

Suggested citation:

Save the Children,'Making Nutritious Diet More Affordable : Findings from the Cost of the Diet Study in West Singhbhum, Jharkhand, India', 1st March 2020.

Acrony ms

AW
C
BMI
Cot
D
DNI
EO
FAO
FGD

FHA
B
HH
INR
IFA
IYCF

JLSP
S
Kcal
MAC
MMRP
MNREG
A NFE
NFHS
NSI
NSSO
NSSPS
NUT
PDS
P&L
POSHA
N
PMMVY
PPS
RDA
RDI
RNI

Anganwadi
Centre Body
Mass Index
Cost of the Diet
Direct Nutrition
Interventions Energy
Only (Diet)
Food and Agriculture
Organization Focus Group
Discussion
Food Habit (Nutritious
Diet) Household
Indian
Rupee Iron
Folic Acid
Infant and
Young Child
Feeding
Jharkhand State Livelihood Promotion
Society Kilocalories or 1000 calories
Macronutrient Only (Diet)
Modified Mixed Reference
Period
Mahatma Gandhi National Rural Employment
Guarantee Act Non-Food Expenditure
National Family Health
Survey Nutrition Sensitive
Interventions National
Sample Survey Office
Nutrition Sensitive Social Protection
Schemes Nutritious (Diet)
Public Distribution
System Pregnant and
Lactating
PM's Overarching Scheme for Holistic
Nourishment Pradhan Mantri Matru
Vandana Yojana
Probability Proportional to Size
Recommended Dietary Allowance
Recommended Dietary Intake

Table of Contents

List of Tables

List of Figures

Executive Summary

India faces a “serious nutrition crisis” contributing to the highest burden of undernutrition in children below five years of age. There are 46 million undernourished children in India, which makes up for 31% of the global burden. Undernutrition directly or indirectly contributes to 68% of under-five deaths in India (Lancet 2019) – much larger than the global estimate of 45%.

While it has been commonplace to blame undernutrition on people’s ignorance of what foods to eat, in circumstances where foods are available to achieve a nutritious and balanced diet, the main obstacle to access is usually economic[1]: people may not be able to afford a diet that meets their needs for energy and nutrients even if they know what foods to eat, or aspire to eat. With this in mind the Cost of the Diet (CotD) Software and Method was developed by Save the Children to apply linear computer programming to select a combination of local foods in amounts that would meet the average needs for energy of one or more individuals as well as their recommended intakes of protein, fat and micronutrients, all at the lowest possible financial cost.

> *Of all the barriers to food access, cost and affordability are among the most important, particularly in the case of nutritious food. According to FAO and WHO (2019),* “Sociocultural aspects of food choice notwithstanding, people generally eat what they can afford.”

The Cost of the Diet assessment was conducted in West Singhbhum district, where Save the Children was implementing a strategic health and nutrition programme. Specifically, this assessment set out to answer the following questions:

- What is the minimum cost of a nutritionally adequate and culturally acceptable diet for typical households in West Singhbhum District?
- What locally available foods are inexpensive sources of essential macro and micronutrients, and could be promoted in the community?
- What is the potential contribution of improved uptake of the existing nutrition interventions on household’s ability to afford a nutritious diet in the assessment area?
- What is the potential effect of improved access of social protection schemes on the availability of nutritious diet at the household level in the assessment area?

The CotD assessment was conducted in Chaibasa and Tonto Block of West Singhbhum District of Jharkhand, which were purposively selected to capture representative data from urban and rural livelihood zones. To supplement the Income-Expenditure data for estimation of affordability for CotD assessment and also to assess the status of access or utilization of Social Protection Schemes (Direct Nutrition Interventions and Nutrition Sensitive interventions), another parallel study on “Income-Expenditure & Social Protection Schemes - West Singhhum Jharkhand” was carried out in 434 households.

A total of 16 markets and 12 villages were selected from Chaibasa and Tonto Block for data collection; which included 16 Market Surveys, 96 Individual Interviews, and 12 Focus Group Discussions.

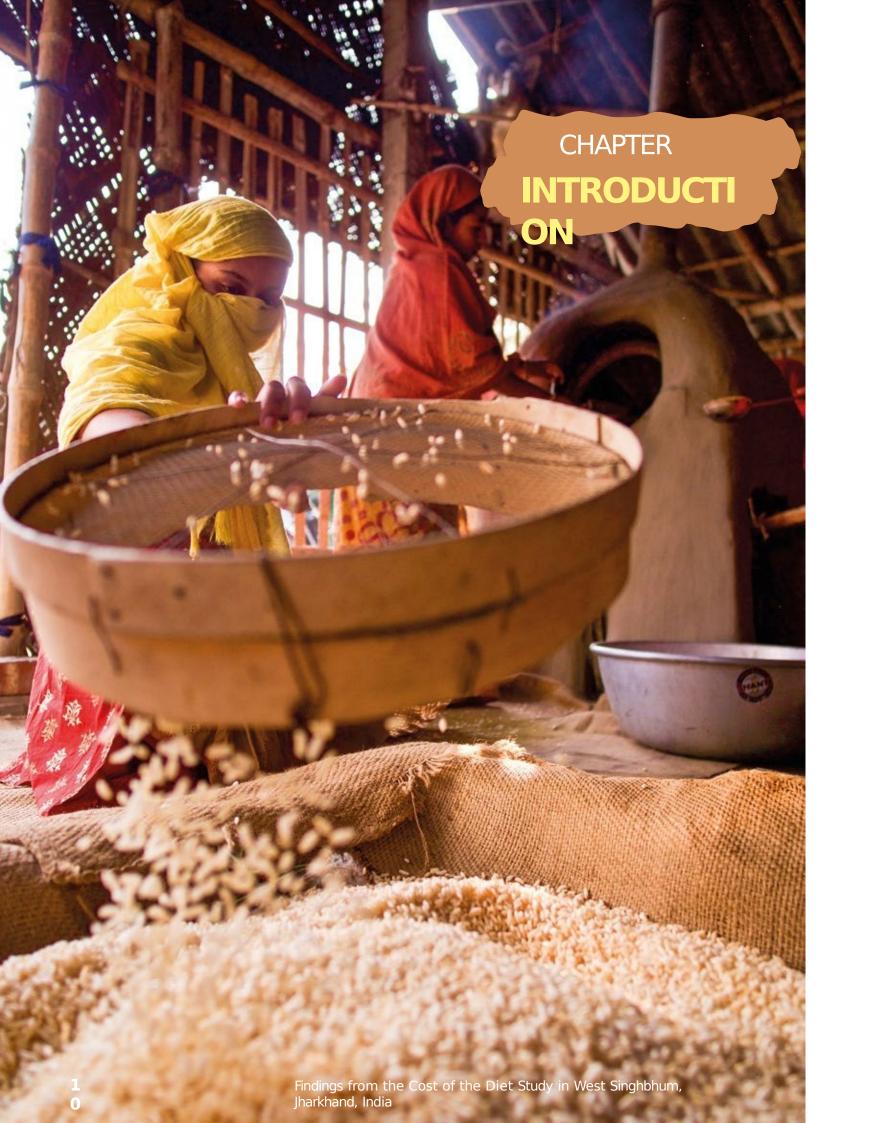
[1]Deptford, A., Allieri,T., Childs, R. et al. Cost of the Diet: a method and software to calculate the lowest cost of meeting recommended intakesof energy and nutrients from local foods. BMC Nutr 3, 26 (2017). https://doi.org/10.1186/s40795-017-0136-4

Key Findings

- Availability of nutrient-rich foods is not the main barrier to typical poor households obtaining a nutritious diet.
- A diet that meets a typical household's nutrient requirements while taking into consideration the local dietary practices was 2 times more expensive than a diet that meets the household's energy requirements only.
- Calcium was found to be a limiting nutrient, i.e. most difficult to obtain and a significant cost driver, followed by vitamin B12.
- Consumption of iron folic acid (IFA) tablets in the recommended quantity by pregnant and breastfeeding women should help fulfil the folic acid requirement, and potentially reduce diet cost.
- Supplementation of THR, PDS, IFA and the proposed intervention of supplementation of Eggs, the cost of food habits nutritious diet can be reduced by 30%.
- Universal uptake of nutrition interventions like Public Distribution System, Take Home Ration, IFA supplementation, Supplementation of Eggs, etc. and/or social protection interventions such as MNREGA, Pension, Livelihood schemes, etc. can lead to significant decrease in percentage income spent on the cost of a food habits nutritious diet (29.5%), thereby reducing the affordability gap. However, non-food expenditures may still not be affordable for the marginalized sections belonging to the lowest income quartile.

Conclusion and Recommendations:

- The cost of the diet increases with the improvement in in the diet quality– from a basic energy only diet costing INR 92/day for a standard household with 6 family members to a food habits nutritious diet costing nearly INR 194/day. The cost of food habits nutritious diet (FHAB) should be used as a benchmark to track the progress of beneficiary groups in upcoming socio-economic assessments and observe changes in affordability gap to assess whether new initiatives have worked.
- Government programmes for key nutrition specific interventions have the potential to reduce the cost of the food habits nutritious diet by 30%. Consumption of iron folic acid (IFA) tablets in the recommended quantity by pregnant and breastfeeding women should help fulfil the folic acid requirement, and potentially reduce diet cost by 4%. Therefore, we need to increase the momentum to deliver these interventions with Coverage, Continuity, Intensity and Quality (C2IQ) as envisaged under the POSHAN Abhiyaan and Anemia Mukt Bharat.
- Key Nutrition Sensitive Social Protection Schemes, which have the potential to improve the household income (like PMMVY, MNREGA, Pension), need to revisit its benefit size. Increase in current daily wages from INR 202 to INR 242 in MNREGA has the potential to improve the affordability of the lowest quartile by 17.8%. Similarly, doubling the benefits of social pensions will help improve affordability of the lowest quartile by 25.3%. Pradhan Mantri Matru Vandana Yojana (PMMVY), which is cash compensation for pregnant and lactating women to improve its dietary practices would improve security and continuity at the household level food security, should revisit its benefit size and payment schedule.
- Additional Child Grant for second child will help beneficiaries avail benefit of the scheme, in case the first child is miscarried or still born. Provision of cash transfer of INR 500 per month per child for 2 children for 2 years will contribute in reducing the poverty inflicts irreversible damage to children's physical and cognitive development – leading to substantial social and economic costs later in life resulting in lower incomes and reduced economic growth in the long term.
- Availability of nutrient-rich foods is not the main barrier for accessing nutritious diets among poor households. Promotion of kitchen gardening, forest foods and

CHAPTER

INTRODUCTION

1. Introduction

1.1. Background

India faces a "serious nutrition crisis" contributing to the highest burden of undernutrition in children below five years of age. There are 46 million undernourished children in India, which makes up for 31% of the global burden.

India has been trying to address child malnutrition for many decades through various policy initiatives, such as the Integrated Child Development Scheme launched in 1975, the National Nutrition Policy 1993, the Mid-Day Meal Scheme for school children 1995, and the National Food Security Act 2013. PM's Overarching Scheme for Holistic Nourishment (POSHAN) Abhiyaan lays out five goals with specific targets to be achieved by 2022. Yet the prevalence of stunting,

Undernutrition directly or indirectly contributes to 68% of under-five deaths in India (Lancet 2019) – much larger than the global estimate of 45%.

wasting and underweight remains high and efforts to reduce undernutrition need to be accelerated. The prevalence of stunting, an indicator of chronic undernutrition, caused by a variety of social, environmental, and economic risk factors, is unsurprisingly highest in the less developed states.

The prevalence of wasting (29%) and severe wasting (11.4%) in Jharkhand is highest in the country while the prevalence of stunting (45.3%) is third highest in the country after Bihar and Uttar Pradesh (National Family Health Survey-4). Around 47.8% of children in Jharkhand are underweight.

Condition is worst in the West Singhbhum District where percentage of underweight children is 66.9 and stunting is 59.4%, which is quite high as per the national average of 35.7% and 35.4% respectively.

The rate of children receiving an adequate diet 7.2% in Jharkhand and as low as 2.3% in West Singhbhum district. The percentage of women whose Body Mass Index (BMI) is below normal (BMI < 18.5 kg/m^2) is 32.4% whereas Men whose Body Mass Index (BMI) is below normal (BMI < 18.5 kg/m^2) is 25.3%. Unless states like Jharkhand minimizes the malnutrition burden, India as a country won't be able to realize the nutrition target of Sustainable Development Goals.

Substantial improvements across the malnutrition indicators in the state of Jharkhand would require improved coverage and uptake of integrated nutrition and social protection interventions to effectively address the broader determinants of undernutrition across the life cycle. These improvements include providing clean drinking water, reducing rates of open defecation, improving women's status, enhancing agricultural productivity and food security, promoting nutrition-sensitive agriculture, social protection schemes, coupled with harmonisation of efforts across ministries and sectors, political will and good governance, and strategic investments in a multi-sectoral approach.

Household food security is dependent on two main factors: the availability of food, which may be grown, raised, bought, traded or gathered from the wild; and the physical and economic access to sufficient amounts of food to meet all nutritional needs at all times. While it has been commonplace to blame undernutrition on people's ignorance of what foods to eat, in circumstances where foods are available to achieve a nutritious and balanced diet, the main obstacle to access is usually economic[2]: people may not be able to afford a diet that meets their needs for energy and nutrients even if they know what foods to eat, or aspire to eat.

> *Of all the barriers to food access, cost and affordability are among the most important, particularly in the case of nutritious food. According to FAO and WHO (2019),* "Sociocultural aspects of food choice notwithstanding, people generally eat what they can afford."

With this in mind the Cost of the Diet (CotD) method was developed by Save the Children to apply linear computer programming to select a combination of local foods in amounts that would meet the average needs for energy of one or more individuals as well as their recommended intakes of protein, fat and micronutrients, all at the lowest possible financial cost. The method enables public health nutritionists and food security specialists to estimate the cost and affordability of meeting energy and nutrient specifications using local foods, as the software selects the most nutritious and least expensive. Users can then create models of the effect of interventions such as food subsidies or supplements, or of introducing novel or bio-fortified foods. As a practical tool it could be used to estimate the amount of a cash transfer to meet dietary specifications for example, or to estimate the cost of the additional energy and nutrients needed during pregnancy.

2. Aims and Objectives of the Study

The Cost of the Diet assessment in West Singhbhum district in 2019 was conducted to estimate at the lowest cost, the quantity and combination of local foods that are needed to provide a typical family with foods that meet their average needs for energy and their recommended intakes of protein, fat and micronutrients. It was also conducted to estimate the potential contribution of some of the existing nutrition specific and nutrition sensitive interventions on household food affordability. This analysis aimed at assessing the degree to which economic constraints might affect poor and very poor households in West Singhbhum district in Jharkhand from accessing a nutritious diet.

The Cost of the Diet (CotD) method and software was developed by Save the Children, and the analysis can estimate the minimum amount of money a typical household would need to purchase their recommended intakes of energy, protein, fat and micronutrients, using locally available foods. Specifically, this assessment set out to answer the following questions:

- What is the minimum cost of a nutritionally adequate and culturally acceptable diet for typical households in West Singhbhum District?
- What locally available foods are inexpensive sources of essential macro and micronutrients, and could be promoted in the community?
- What is the potential contribution of improved uptake of the existing nutrition interventions on household's ability to afford a nutritious diet in the assessment area?
- What is the potential effect of improved access of social protection schemes on the availability of nutritious diet at the household level in the assessment area?

[2] Deptford, A., Allieri,T., Childs, R. et al. Cost of the Diet: a method and software to calculate the lowest cost of meeting recommended intakes of energy and nutrients from local foods. BMC Nutr 3, 26 (2017). https://doi.org/10.1186/s40795-017-0136-4

1.3. The Cost of the Diet method and software[3]

The Cost of the Diet (CotD) method and software was developed by Save the Children in an attempt to enhance the impact of traditional nutrition education programmes by identifying economic constraints to accessing nutritious food items. It uses a linear programming tool which optimizes (minimizes) the cost of the diet based on the availability, price and nutrient content of all food items as well as food consumption habits based on socio-cultural practices in the assessment area. When combined with household socioeconomic data, the analysis can estimate the affordability of nutritious diet by different population groups; and also model the effect of various interventions on the household affordability of nutritious diet. The current version of the CotD software is menu driven and applies a set of linear optimisation routines[4] to select locally available foods to meet these nutrient requirements at the lowest possible cost.

The Cost of the Diet (CotD) is an innovative method and software that estimates at the lowest possible cost, the quantity and combination of local foods that are needed to provide a typical family with foods that meet their average needs for energy and their recommended intakes of protein, fat and micronutrients.

During analysis, the CotD software selects a combination of food available from the list of food available at the market, grown at home and/or in the natural environment for free, that would be necessary for a family and individual to meeting their nutrient requirements. Nutrient requirements are calculated as recommended by the WHO and the FAO (2004) at the lowest possible cost. In this analysis we will discuss four diets:

a) Energy-Only Diet
b) Macronutrient diet
c) Lowest Cost Nutritious diet,
d) and Food Habit Nutritious Diet

[3] Further details about the Cost of the Diet (CotD) method, software, practitioner's guide and study reports can be accessed and downloaded from the CotD website (https://www.heacod.org).

[4] Deptford A., Allieri T., Childs R., Damu C., Ferguson E., Hilton J., Parham P., et al. . (2017). Cost of the Diet: A Method and Software to Calculate the Lowest Cost of Meeting Recommended Intakes of Energy and Nutrients from Local Foods. BMC Nutrition 3 1: 26.

Table 1 below summarises the key characteristics of each of these four diets.

Table 1: A summary and definition of the diets analysed using the Cost of the Diet (CotD) software.

Diet name	Description	Energy needs met	Protein needs met	Fat needs met	Micronutrient needs met	Reflects a typical diet
Energy only diet (EO)	A lowest cost diet that only meets the average energy requirements of the members of the household	√				
Macronutrient diet (MAC)	A lowest cost diet that only meets the average energy and the recommended protein and fat requirements of the members of the household.	√	√			
Nutritious diet (NUT)	A lowest cost diet that meets specifications for energy, protein, fat and micronutrients but does not take into account typical dietary habits.	√	√	√	√	
Food habits nutritious diet (FHAB)	A lowest cost diet that meets specifications for energy, protein, fat and micronutrients and takes into account typical dietary habits and cultural acceptability.	√	√	√	√	√

Source: Cost of the Diet Practitioner's guide (version 2)[5]

1. Energy-Only (EO) Diet:

While estimating an energy-only diet, the CotD software computes a list of food that meets only the average energy requirements of a family at the lowest possible cost. This diet will not likely meet all the nutrient requirements and analysis is not used to promote an energy-only diet. Instead, it is used to illustrate:

- The cheapest sources of energy available for purchase (based on Kcal per 100g) at the assessment area.
- The potential for macro and micronutrient deficiencies in an energy-only diet.
- The additional cost necessary to meet all nutrient requirements, in the assessment area.

[5] The complete practitioner's guide is available at: https://www.heacod.org/engb/Published%20Reports/CoD_Guidelines_Complete_English.pdf

2. Macronutrient (MAC) Diet:

A macronutrient diet calculated by the software only meets the recommended energy, fat and protein targets of the family members at the lowest possible cost. This diet does not take into account the micronutrient needs of the household, and cannot be promoted as a standard diet to follow.

3. Nutritious (NUT) Diet:

A nutritious (NUT) diet is a diet calculated by the CotD software to meet the recommended macro and micronutrient intake of the typical family, at the lowest possible cost. The NUT diet does not take into consideration typical dietary patterns and cultural preferences, however, it is still useful to illustrate:

- The differences in food composition and cost when compared with a Food Habit Nutritious (FHAB) diet.
- The additional cost of macro and micronutrients when compared with the energy-only (EO) and macronutrient (MAC) diet.
- The number of food items (which is relatively small) that can provide a hypothetical nutritious diet but often in unrealistic quantities.

4. Food Habit Nutritious (FHAB) Diet:

A food habit nutritious (FHAB) diet is a culturally acceptable nutritious diet that takes into account the typical dietary habits[6] in the assessment area in addition to the macro and micronutrient requirements of the family members. The FHAB diet meets the recommended intakes for energy, protein, fat and 13 micronutrients[7] (nine vitamins and four minerals) at the lowest possible cost. While calculating the FHAB diet the CotD software adheres to the minimum and maximum constraints (i.e. the number of times a week that the foods can be included in the diet) that are based on dietary habits questionnaire as part of a focus group discussion.

[6] The main staple, foods commonly consumed, seasonality and food taboos are taken into account to reflect the typical dietary patterns/habits. [7] The 13 micronutrients included in the assessment are Vitamin A (µg retinol equivalents),Vitamin C (mg),Vitamin B1 (mg),Vitamin B2 (mg), Niacin (mg niacin equivalents), Pantothenic acid (mg),Vitamin B6 (mg), Folic acid (µg DFE),Vitamin B12 (µg), Calcium (mg), Iron (mg), Magnesium (mg) and Zinc (mg).

CHAPTER

METHODS

2. Methods

1. Selection of study area, sample design and data collection

This section of the report describes in detail the profile of study area, sample size estimation, location of the study, selection of market sites and villages, defining the seasons for retrospective data gathering, and the data collection process for gathering market prices and dietary habits of the population in the assessment area.

1. Study Area

The Study was conducted in West Singhbhum district of Jharkhand as Save the Children was implementing a strategic health and nutrition programme in West Singhbhum at the time of the assessment. West Singhbhum district came into existence when the old Singhbhum District bifurcated in 1990. With 9 Community Development blocks, eastern part became the East Singhbhum with Jamshedpur as its district headquarters and remaining 23 blocks formed West Singhbhum with Chaibasa as its district headquarters. At present West Singhbhum comprises of 15 blocks and two administrative Sub-divisions.

The CotD assessment was conducted in Chaibasa and Tonto Block of West Singhbhum District of Jharkhand, which were purposively selected to capture representative data from urban and rural livelihood zones. To supplement the Income-Expenditure data for estimation of affordability for CotD assessment and also to assess the status of access or utilization of Social Protection Schemes (Direct Nutrition Interventions and Nutrition Sensitive interventions), another parallel study on "Income-Expenditure & Social Protection Schemes - West Singhhum Jharkhand" was carried out. Both the studies overlay the geographies of

Table 2: Profile of Study Area: West Singhbhum

Districts	Blocks	Total Households	Total Population	Estimated Sample Size[8]	Actual Sample Size[4]
West Singhbhum	-	301,400	1,502,338	430	434
West Singhbhum	Chaibasa	17,032	86,389	254	244
	Tonto	12,129	59,918	176	190

Source: Census of India, 2011, RGI

[8] For Study on Income-Expenditure & Social Protection Schemes - West Singhhum Jharkhand

2.1.2. Sample Design

For the CotD assessment, the specific markets and villages were selected in collaboration with the local team of data collectors, to select a representative sample of the whole assessment location. A total of 16 markets and 12 villages were selected for the final assessment from a complete list of markets and villages (Annex 2). Out of 16 markets, 9 Big Markets and 7 Small Markets were selected. Of the 16 markets, 8 markets were selected from Chaibasa Block and 8 markets were selected from Tonto Block. All of the 12 villages were within the catchment areas of the markets where market surveys were conducted. One additional market and one village were selected for the field practice.

For the study on "Income-Expenditure & Social Protection Schemes", based on the population size of the district, the sample size is worked out for the prevalence rate of 50%, to give the most conservative sample size covering all indicators; 95% confidence level and 5% confidence interval. Further, a 5% margin of error and design effect of 1.5 help to account for human errors arising during sample selection and data collection. In accordance with the above mentioned formula, the sample size to be covered in each district works out to 385 respondents per category. After inflating the sample size by 10% to account to any nor-response bias and rounding it off to the nearest integer, the total sample size works out to 430 respondents. For quantitative HH survey, the sample size is around 430 to statistically represent the universe (district). The sample of 430 is distributed across 2 selected blocks (Chaibasa and Tonto, where CotD survey was carried out) based on the Probability proportional to size (PPS) (in proportion of total population) i.e. 254 for Chaibasa (59%) and 176 for Tonto (41%).

Selection of Households: In each sample village, the list of households with 0 to 2 years old children is obtained from the AWC. From this list, the households are identified with HH member combination of a) pregnant / lactating women; and/or b) adolescent girl / boy of 10 to 19 years. If such combination of HH. members is not found, then only those households with 0 to 2 years old children are considered. From this segregated list, the requisite number of households are selected using systematic random sampling.

Sample Frame (No. of HHs)

Block	Census Village	Children between 0-2 years	Adolescent girls and boys (10-19 years)	Pregnant women and lactating mothers	Total (exclusive)
Chaibasa	9	244	70	14	244
Tonto	7	190	68	50	190
Total	16	434	138	64	434

For CotD assessment, data collection took place between 12th and 24th December, 2019 following a four days long training including field practice. A total of 16 data collectors were trained in market survey data collection, focus group discussion and individual interviews. All data collectors were selected from the local area (i.e. the assessment location) with the previous experience of data collection with a range of qualitative and quantitative tools. A Data Entry Operator was further trained on the data entry process at CotD software and was used for the data entry.

For the study on "Income-Expenditure & Social Protection Schemes", data collection took place between 1st and 12th February, 2020 following a three days long training including field practice. A total of 6 field investigators and 2 supervisors

were trained on household survey questionnaire. All data collectors were selected from the local area (i.e. the assessment location) with the previous experience of data collection with a range of qualitative and quantitative tools. The data was collected on tablets using KOBO. Data verification and cleaning was followed by data analysis to arrive at the desired results.

3. Market Survey

The market survey was conducted in 16 markets. These markets were selected to be representative of where poor and very poor households living in Chaibasa and Tonto blocks purchased their food. The primary aim of the market survey was to record the prices and weights of food items found in the assessment area across various seasons.

First, a list of all food items available in th
the knowledge of the data collectors who
during the field trial in a local market in Cha
data collection methods, data not
included) new items were added to the list. The resulting comprehensive food list was then used to collect data on price and weight during the market survey.

To obtain the seasonal variation in food price and availability, retrospective data were collected. The reference year selected for data collection was from February 2019 to January 2020. Based on the consultations with the data collectors, it was decided to collect price data on three cropping seasons:

- Season 1: Kharif: June 2019 to September 2019.
- Season 2: Zaid: Feb 2019 to May 2019.

To collect the information necessary for the cost of the diet analysis, in each market, traders were asked the price of the smallest unit of each food item that they sold in each of the three seasons. The price of the smallest unit sold is generally higher per unit compared to bulk purchase and reflects the typical buying practice of poor population. Real-time data were collected for the current season (season 3/rabi) while retrospective data were collected through recall for the two other seasons (season 1/kharif and season 2/zaid).

Each of the food items found in the market assessment was selected from Indian food composition database in the CotD software. If any food items were not available in the Indian food composition table, same food variety from the Bangladeshi food composition database was selected. In rare cases, if any food items were not available in any of the food databases, new food items were created.

In the market survey, we collected the weight and price data of each items available in the market. Weight and price data were collected from four traders in each market. Price data were collected in local currency (Indian Rupee) and weight was recorded in grams. The weight of each of the food items was measured three times using a digital weighing scale with +/-1g precision level. For retrospective price and weight data, traders were asked questions about annual trends in prices, and changes in the demand and supply of commodities across the seasons. The price and weight data (for all seasons) were entered into the Cost of the Diet software, which then ge

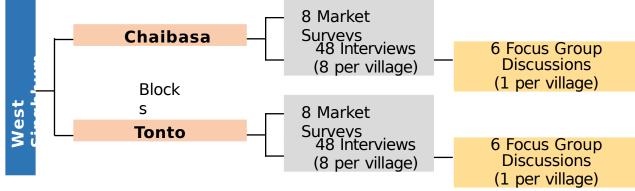
2.1.4. Interviews and focus group discussions

To estimate a realistic and nutritious diet, the analysis needed to take into consideration the typical food consumption habits, cultural practices and food taboos in the assessment area. These particular type of information was collected through interviews and focus group discussions (FGDs).

FGDs and individual interview were conducted in a total of 12 villages in Chaibasa and Tonto Blocks of West Singhbhum District. In each village, 8 women (belonging to households with children under two years, presence of pregnant/lactating women, adolescent boys/girls and elderly people) were asked to participate in both individual interviews and FGDs. All of these women were primary food preparers in the household.

During the individual interviews, a 'food frequency questionnaire' were administered that contained all the food items listed in the market survey questionnaire. The purpose of this exercise was to assess the frequency (per week) of consumption of all food items on the list, if available or in season.

Followed by the individual interviews, an FGD was conducted with the same group of women who took part in the interviews using a semi-structured questionnaire. The discussions validated the compiled responses from the interviews and also covered, food preferences, taboos, beliefs, intra-household food distribution and access to markets, and home grown/naturally available free food items.

Figure 1 Data Collection Plan for Cost of Diet Assessment

5. Study on Income-Expenditure & Social Protection Schemes:

The areas of enquiry for the study on Income-Expenditure & Social Protection Schemes were as follows:

- Income and its sources (member wise)
- Expenditure and its pattern (Food and Non-Food)
- Knowledge and Access to Direct Nutrition Interventions (DNIs) – Children, Pregnant and Lactating Women (P&L) and Adolescents
- Knowledge and Access to Nutrition Sensitive Interventions (NSIs)

Accordingly, the detailed questionnaire was framed to cater to the areas of queries

2.2. Average household size and composition

The Cost of the Diet analysis is primarily based on a typical family or household. For the purpose of this assessment, the average household size was used from Study report on Income-Expenditure & Social Protection Schemes conducted by Save the Children in February 2020 in the same geography covering 434 households. The reported average household size was 5.6; therefore an average household size of six was used for this analysis. The composition of the family was based on a hypothetical standard six-member family that contains a man, a woman, the mother-in-law and 3 children including one child below 23 months and one adolescent girl. The detailed composition of the family is given in Table 3.

Household member (type)	Kcal per Day
1 x Child (either sex) 12-23 months	907
1 x Child (either sex) 4-5 years	1301
1 x Female 13-14 years	2575
1 x Man, 30-59y, 50 kg, moderately active	2750
1 x Woman, 30-59y, 45 kg, moderately active (1 x Lactation, 7-12 months)	2760
1 x Woman, >60y, 45 kg, moderately active	2050
Total Energy Requirement of the Family/Household	**12343**

It should be noted that the estimated cost of different types of diet not only varies by the family size but also by composition. Depending on the sex, age, body weight and physiological condition of the family members and their activity level, nutrient requirements and the cost of meeting those nutrient needs can vary substantially. In order to demonstrate this variability in cost, further analysis was conducted using different family size and composition. Further details about the alternative family size and composition are provided in Annex 3.

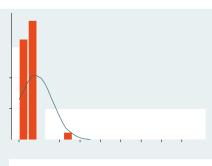
2.3. Estimating the affordability of diets

While the minimum cost of a nutritious diet can be useful on its own, it can be more meaningful if compared with the purchasing power of the population of interest. The Cost of the Diet (CotD) software has a built-in functionality to estimate the affordability of the diet, but the CotD methodology does not collect income/expenditure data; therefore the analysis is dependent on obtaining economic data from secondary sources.

In this analysis, the affordability was based on the income data gathered during the 'Study on Income-Expenditure & Social Protection Schemes', conducted in February 2020 alongside the CotD assessment. Whereas the data on non-food expenditure (NFE) was taken from 68th round of NSSO (2012). The discrete data of non-food expenditure was converted to proportion amongst quartile groups from both rural and urban fractile distribution of monthly per capita consumer expenditure (MMRP)[9] over broad categories of goods and services by sector. Annual income and NFE for different wealth quartiles are presented in Table 4.

[9] Modified Mixed Reference Period (MMRP): This is the measure of MPCE obtained by the consumer expenditure survey (CES) when household consumer expenditure on edible oil, egg, fish and meat, vegetables, fruits, spices, beverages, refreshments, processed food, pan, tobacco and intoxicants is recorded for a reference period of "last 7 days", expenditure on items of clothing and bedding, footwear, education, institutional medical care, and durable goods is recorded for a reference period of "last 365 days", and expenditure on all other items is recorded with a reference period of "last 30 days".

Median Income was considered for data analysis as the Income data was skewed.

Income Quartiles	N	Mean	Median	Min	Max	SD
Q 1	110	22541.5	25000	1200	36000	9853.3
Q 2	107	50055.9	50000	36420	62500	7751.0
Q 3	111	77736.1	75650	63000	96000	8895.7
Q 4	106	181524.6	144000	96900	874500	116833.7
Total	**43**	**82271**	**6275**	**1200**	**87450**	**83360.6**

By accounting for the non-food expenditure in the calculation, the analysis acknowledges the household needs in addition to food (some of which are critical for their survival); and it also made possible to present a more realistic estimate of the household affordability. Table 4 shows annual household income, NFE, and the portion of the household income available for food purchases.

Annual Income and NFE	Annual Income	Non-Food Expenditure
Q1	25100	10971
Q2	50425	24264
Q3	75375	39117
Q4	140101	94375

4. Limitations of the Cost of the Diet software and method[10]

While the Cost of the Diet method and software is a very useful and powerful tool, it is important to be aware of the limitation of the analytical process and the results provided by the software, these are:

- The software estimated diet is the hypothetical lowest cost diet applicable only for the family size and composition used to calculate it.
- As the actual requirement for micronutrients for any given individual cannot be known, the software sets the Recommended Nutrient Intake (RNI) at 2SD (Standard Deviation) above the mean, to minimise the risk of deficiency. This means that when the composition of the foods selected by the CotD software completely meets the RNIs of the family, the nutritional needs of 97 percent of all individuals will be exceeded.
- Though the software can identify a ‘diet’ providing the recommended amounts of macro and micronutrients from a relatively small number of foods, it assumes that that particular diet will be consumed by the family members daily at every meal, which can be unrealistic.
- The CotD software does not take into consideration the needs for a number of nutrients including vitamin D, iodine, essential amino acids and essential fatty acids. Vitamin D is not included because requirements can be met by making vitamin D in skin exposed to ultra-violet light. Iodine is not included because the amount in foods depends on the soil on which plants are grown or animals are reared, so no data are available in the food tables. And most food tables do not provide data on essential amino acids or fatty acids.
- Another critical aspect to keep in mind while interpreting the CotD results is intra-household food distribution. The CotD software determines amounts of food for a family based on the sum of RNIs, but often food is distributed within a household based on individual nutrient needs.
- The CotD method does not take into account the additional energy, protein and nutrients needed by someone who is sick or convalescing as there are insufficient data for the calculations.
- Finally, the readers need to keep in mind that the Cost of the Diet software is not designed to plan a diet nor can it analyse the nutrient content of the foods in a

[10] Deptford et al. BMC Nutrition (2017) 3:26 and Cost of the Diet Practitioner's Guide Version 2.

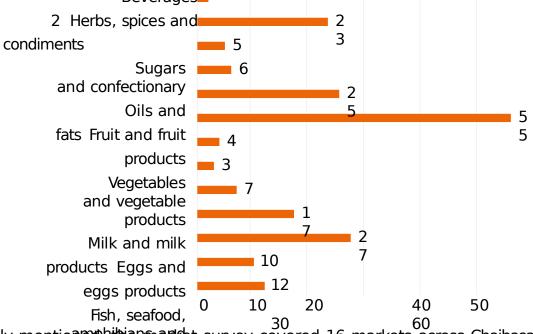
CHAPTER 3

RESULTS

3. Results

1. The availability of foods in the local markets

The market survey found a total of 196 food items in the assessment area combining all three seasons (Annex 4). All these foods were listed during survey, which includes: 12 types cereal or grain-based products, 10 types of roots and tubers, 27 types of legumes, nuts and seeds, 17 meat and offal, 7 types of fish or sea-foods, 55 vegetables and 25 fruits and fruit products. Figure 2 below shows how many different varieties of food items were found under each of the food groups.

Figure 2: The number of food items found from different food groups at markets in West Singhbhum District, Jharkhand (available at the time of the survey).

As previously mentioned, the market survey covered 16 markets across Chaibasa and Tonto Blocks. The market survey data shows that there is minor variability in the number of available food items by type of block. As shown in Table 5, markets in Chaibasa block, that are peri-urban in nature, had 8 more food varieties compared to the rural village level markets at the time of the survey.

In general, the availability of cereals, tubers, vegetables did not differ much by block. However, the markets in Tonto had noticeably few varieties of legumes and milk products as compared to the markets in Chaibasa.

Table 5:The number of food items found at the time of the survey in West Singhbhum by food groups

Sr. No.	Food Groups	Chaibasa	Tonto	Total
1	Grains and grain-based products	12	12	12
2	Roots and tubers	9	8	10
3	Legumes, nuts and seeds	27	22	27
4	Meat and offal	17	17	17
5	Fish, seafood, amphibians and invertebrates	7	6	7
6	Eggs and egg products	3	3	3
7	Milk and milk products	0	4	4
8	Vegetables and vegetable products	51	50	55
9	Fruit and fruit products	23	24	25
10	Oils and fats	6	4	6
11	Sugars and confectionary	5	4	5
12	Herbs, spices and condiments	23	22	23
13	Beverages	2	1	2
	Total	**185**	**177**	**196**

3.2. Typical food consumption habits and food taboos

The results from the 96 interviews and 12 focus group discussions revealed that households eat three meals a day, prepared by the women. The wife tells the husband what food is needed and he goes to the market to buy it. In all of the focus group discussions the women said that the men do buy what the women tell them to. The women also mentioned that during the winter, they will only eat two meals a day as it is difficult to digest foods during shorter days.

Rice (dehati/usna chawal) was the staple food of the assessment area and was eaten at least twice a day. Consumption of chapatti and other breakfast items was negligible. Lentils, onions, potatoes, tomatoes and drumsticks were used in curries and were eaten daily along with green leafy vegetables such as spinach, fenugreek which were abundant and inexpensive in the market and other wild varieties of leafy vegetables which were abundant in the wild. Other commonly consumed foods included dried fish, pumpkin, cabbage, peas, etc.

Milk and milk products were rarely consumed due to their cost. Milk, Curd, Kheer, etc. are perceived to be consumed by only the rich. Although abundant in the markets, eggs were not regularly consumed as they were considered too expensive. They also consume certain indigenous foods such as red ants (howku), snails (ghengha), etc. Apart from the foods available in the market and/or grown at home, hunting of animals such as birds, pigs, deer, rabbit, squirrel, rat, etc. is also done occasionally. Crabs, Eel, Small fishes are consumed during the monsoon season.

Most of the households brew rice beer hadiya. Consumption of Hadiya is very common, which is worrisome as it often suppresses hunger and can lead to inadequate nutrient intake.

The women were also asked about specific foods that were eaten during different stages of the life cycle. Children under the age of 2 were given often given soft,

rice with water or milk, banana and boiled vegetables. Some even reported consumption of formula feeds. Children under the age of 6 months mostly consume breast milk only. There are no specific taboos for this age group but they are not given spicy foods or hard to chew foods. By the age of 5 years, children are eating the same foods as the rest of the household.

When asked about food consumption habits during pregnancy there were both positive and negative practices. Women said that they increased the amount of rice, vegetables and fish during pregnancy so that their baby could be healthy. Specific foods such as boiler meat, jackfruit, pear, sweets and other sour, oily foods were also avoided during pregnancy by the women. As with pregnancy, there were both positive and negative practices mentioned when women were asked about typical food habits during lactation.

When asked who influences or enforces these practices the women in every focus group discussion said that these beliefs had been imposed for generations. They also said that their grandmothers, mothers and mothers-in-law are currently enforcing these beliefs.

3. The Cost of the Diets

This sub-section of the report presents the findings around cost, composition and nutrient profile of different diets. All costs are calculated and shown in Indian Rupee (INR). When the cost of the diet of the child aged 12-23 months is presented here, it only includes the cost of the complementary food and does not include the cost of breastmilk.

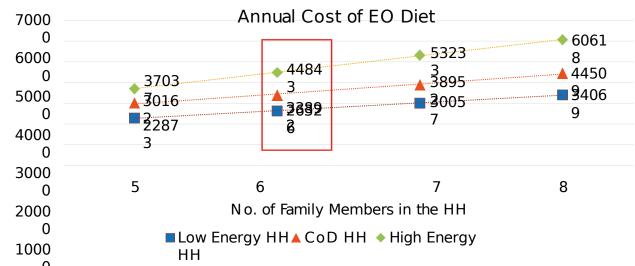
1. Energy Only (EO) Diet

The lowest cost diet for a standard 6 person HH in West Singhbhum, which meets only their energy requirements ranges from 84 to 102 INR per day. Table 6 below, shows the minimum cost of the diet by family group and by season. The daily cost of the EO diet did not differ significantly and the annual cost was found to be 33892 INR

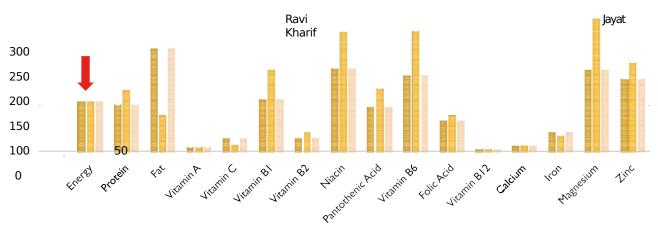
Household members	Rabi	Zaid	Kharif	Average Daily Cost
12-23 months old child	4.27	4.36	4.44	4.35
Breastfeeding mother	21.45	21.92	22.23	21.86
Rest of the family	65.34	66.77	67.83	66.65
Total Cost of the Diet	91.05	93.05	94.50	92.86

The composition of the typical household selected for the Cost of the Diet analysis consists of a family of three adults and three children as mentioned in section 2.3. However, depending on the sex, age, body weight and physiological condition of the family members and their activity level, energy requirement and the cost of meeting the energy need can vary substantially.

Figure 3 shows how the annual cost of the energy only diet for the CotD family varies by the number of individuals in the household from five to eight and for families with the minimum and maximum energy requirements. The annual cost of an EO diet can range from 26326 INR for a 6 persons HH with low energy need to 44843 INR for a 6 persons HH with high energy need.

Figure 3: The annual cost of an energy-only diet for a household of between five and eight members

** The annual costs are based upon mean energy values. For each household size, a household composition with low energy requirement and another household with a high energy requirement was selected.*

As highlighted earlier in the methodology section, the EO diet by design meets the energy requirement. However, it does not necessarily need to meet the requirement of other macronutrients (protein, and fat) and micronutrients. Figure 4, shows the households' nutrient requirements met by the EO diet by seasons. The Recommended Dietary Intakes (RDIs) for energy were met by 100 percent in all seasons.

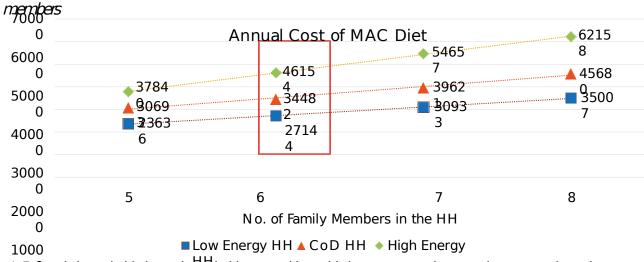
Figure 4: The percentage of energy and target nutrient intakes met in an energy only diet for the family, by season

3.3.2. Macronutrient (MAC) Diet

The lowest cost diet for a standard 6 person HH in West Singhbhum, which meets needs for energy and macronutrient but does not meet micronutrient requirements ranges from 88 to 102 INR per day. Table 7 below, shows the minimum cost of the diet by family group and by season. The daily cost of the MAC diet did not differ significantly and the annual cost was found to be 34482 INR for a standard 6 person HH. A detailed breakdown of food items selected for the MAC diet and percent nutrient requirement met is shown in Annex 6.

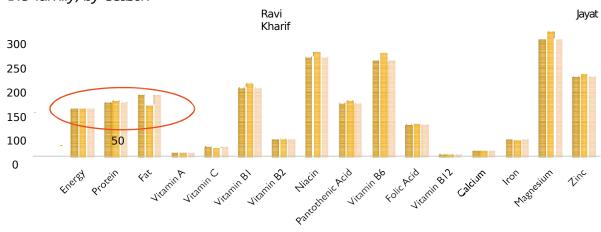
Table 7:The lowest cost of a macronutrient (MAC) diet for the standard six-person family in West Singhbhum by seasons

Household members	Rabi	Zaid	Kharif	Average Daily Cost
12-23 months old child	4.36	4.41	4.57	4.45
Breastfeeding mother	21.85	22.34	23.04	22.41
Rest of the family	66.18	67.62	69.08	67.63
Total Cost of the Diet	92.39	94.36	96.68	94.48

Figure 5 shows how the annual cost of the energy only diet for the CotD family varies by the number of individuals in the household from five to eight and for families with the minimum and maximum energy requirements. The annual cost of an MAC diet can range from 27144 INR for a 6 persons HH with low energy need to 46154 INR for a 6 persons HH with high energy need.

Figure 5: The annual cost of a macronutrient (MAC) diet for a household of between five and eight members

** For each household size, a household composition with low macronutrient requirement and another household with a high macronutrient requirement was selected.*

As shown in Figure 6, the MAC diet meets the energy, protein and fat requirements by 100 percent in all seasons.

Figure 6: The percentage of energy and target nutrient intakes met in a macronutrients diet for the family, by season

3.3.3. Nutritious (NUT) Diet

The lowest cost diet for a standard 6 person HH in West Singhbhum, which meets their nutrient requirements ranges from 130 to 172 INR per day. Table 8 below, shows the minimum cost of the diet by family group and by season. The daily cost of the NUT diet did not differ significantly and the annual cost was found to be 54958 INR for a standard 6 person HH. A detailed breakdown of food items selected for the NUT diet and percent nutrient requirement met is shown in Annex 7.

Table 8:The lowest cost of a nutritious (NUT) diet for the standard six-person family in West Singhbhum by seasons

Household members	Rabi	Zaid	Kharif	Average Daily Cost
12-23 months old child	7.27	7.58	8.91	7.92
Breastfeeding mother	30.24	31.44	34.97	32.22
Rest of the family	102.57	107.23	121.57	110.45
Total Cost of the Diet	140.08	146.24	165.44	150.59

Figure 7 shows how the annual cost of the nutritious (NUT) diet for the CotD family varies by the number of individuals in the household from five to eight and for families with the minimum and maximum energy requirements. The annual cost of an NUT diet can range from 43174 INR for a 6 persons HH with low nutrients need to 67376 INR for a 6 persons HH with high nutrients need.

Figure 7: The annual cost of a nutritious (NUT) diet for a household of between five and eight members

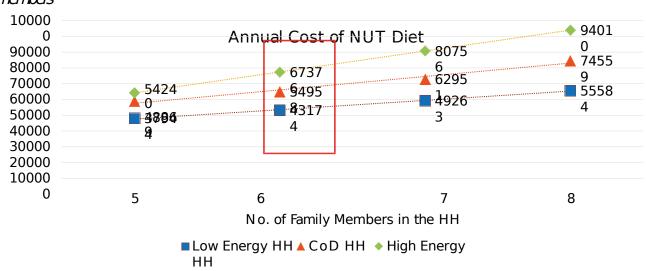
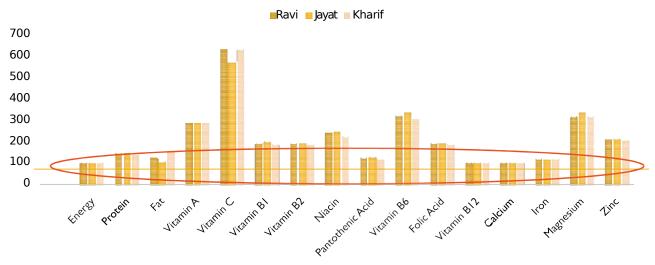



Figure 8 shows that the RDI was precisely 100 percent for vitamin B12, calcium and iron for the standard household in all seasons of the year. Though local food sources met the recommended intakes, the analysis highlights that these nutrients were most challenging to obtain. It should be noted that available food items in the local markets can fulfil all macro and micro-nutrients requirements, and the analysis did not identify any limiting nutrients in the assessment zone.

Figure 8: The percentage of energy and target nutrient intakes met in a minimum cost nutritious diet for the family, by season

It is important to stress that the nutritious diet presented in this section did not take into consideration the typical food consumption pattern and food preferences of the population in Chaibasa and Tonto blocks. The NUT diet only reflects the cheapest way for the typical household to meet the macro and micronutrients requirements. During the analysis, CotD software took into consideration the price and nutrient content of all available food items in the markets and did not apply any constraints for dietary habits.

3.3.4. Food Habits Nutritious Diet (FHAB) Diet

The primary difference between the nutritious (NUT) diet and a food habit nutritious (FHAB) diet is that the NUT diet does not take into consideration, the cultural, social practices around food consumption and does not reflect the usual food consumption pattern in the assessment area. As a result, though the NUT diet identifies the least expensive way for the typical family to meet the specified amounts of macro and micronutrients using all foods available in the market, it is often unrealistic for a family to follow that diet. FHAB diet, on the other hand, is calculated by applying constraints at the time of analysis to reflect the typical dietary practices of a household in the assessment location.

The lowest cost diet for a standard 6 person HH in West Singhbhum, which meets their nutrient requirements by accounting for their food habits ranges from 162 to 212 INR per day (Table 9). The daily cost of the FHAB diet did not differ significantly and the annual cost was found to be 70627 INR for a standard 6 person HH. A detailed breakdown of food items selected for the FHAB diet and percent nutrient requirement met is shown in Annex 8.

Household members	Rabi	Zaid	Kharif	Average Daily Cost
12-23 months old child	7.65	7.66	8.76	8.02
Breastfeeding mother	46.68	47.84	46.88	47.13
Rest of the family	136.95	139.52	138.60	138.35
Total Cost of the Diet	191.28	195.01	194.23	193.50

Figure 9: Intra-household distribution of cost of the FHAB diet

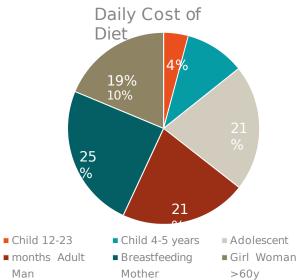



Figure 9 illustrates the intra-household distribution of cost by displaying the cost of the FHAB diet for each individual members expressed as a percentage of total cost. The figure shows that the lactating woman represents the largest proportion of total cost (25 percent), followed by the man (21 percent), adolescent girl 13 to 14 years (21 percent), elderly woman (19 percent), child 4 to 5 years (10 percent), and the child 12 to 23 months (4 percent).

Figure 10 shows how the annual cost of the food habit nutritious (FHAB) diet for the CotD family varies by the number of individuals in the household from five to eight and for families with the minimum and maximum energy requirements. The annual cost of an FHAB diet can range from 53330 INR for a 6 persons HH with low nutrients need to 67376 INR for a 6 persons HH with high nutrients need.

Figure 10: The annual cost of a food habit nutritious (FHAB) diet for a household of between five and eight members

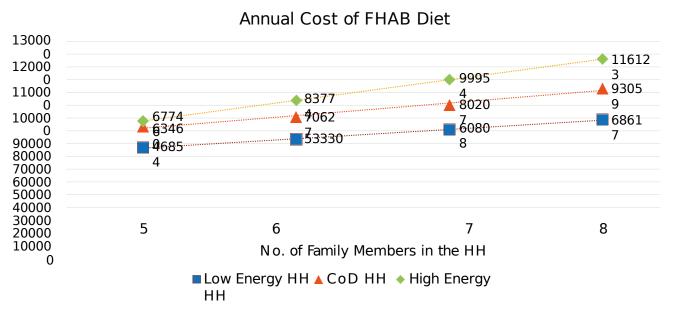
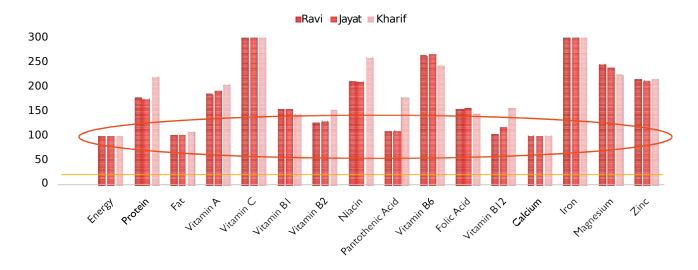
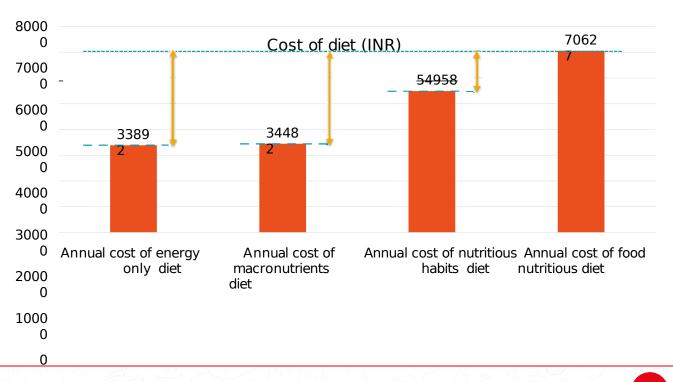



Figure 11 shows that all nutrient requirements were met for all the entire family including the 12- 23 months old child and the lactating woman; however, the RDI is exactly 100 percent for fat and calcium, and nearly 100 percent for pantothenic acid and vitamin B12, for the whole of the family, in all seasons of the year. These figures signify that these nutrients are most difficult to obtain from the FHAB diet using locally available foods.

Figure 11: The percentage of energy and the recommended nutrient intakes for micronutrients met by a FHAB diet for the whole family, by season

3.4. Cost Comparison of different diets

The cost of the diet increases with increase in the diet quality – from a basic energy only diet costing INR 92/day for a standard household with 6 members to a food habits nutritious diet costing nearly INR 194/day; including more diversified and desirable food groups factoring individual food preferences and food consumption habits based on socio-cultural practices. Thus, a diet that meets a typical household's nutrient requirements while taking into consideration the local dietary practices is 2 times more expensive than a diet that meets the household's energy requirements only (Figure 12).

Figure 12 Annual Cost of various diets for a standard household with 6 members and average annual income

3.5. Affordability of the Diets

Affordability analysis to study the purchasing power of the study population was based on income data gathered during the 'Study on Income-Expenditure & Social Protection Schemes', conducted alongside the CotD assessment. Data on non-food expenditure (NFE) was taken from 68th round of NSSO (2012). Income Quartile 1 and Quartile 4 showed contrasting trends with respect to Food Expenditure and Non-Food Expenditure – the poorest quartile was spending 56.8% on food and 43.2% on non-food expenditures, while the richest of the population spend around 33.7% of their total expenditures on food and around 66.3% on non-food expenditures (Figure 13).

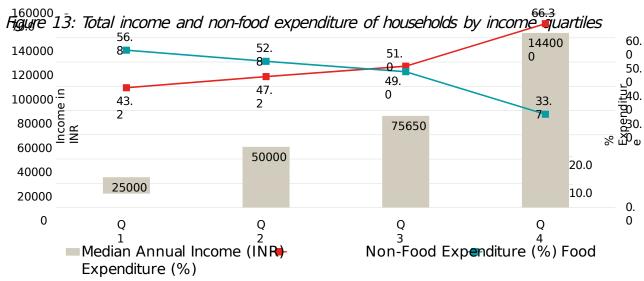
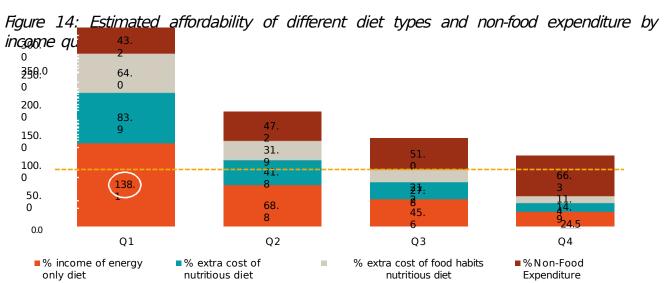
Figure 13: Total income and non-food expenditure of households by income quartiles

While interpreting the affordability results, the readers should bear in mind that these estimates are based on multiple assumptions and variable parameters. Figure 14 shows the affordability of the diets for four different income quartiles. The results show that, households belonging to quartile 1 and quartile 2 cannot afford a food habit nutritious diet. This result implies that households from all quartiles can only afford to purchase a portion of the FHAB after meeting the non-food expenditure. Alternatively, if the households buy full FHAB diet for all its members, it would not be able to afford to meet the non-food expenditures.

Figure 14: Estimated affordability of different diet types and non-food expenditure by income qu

6. Modelling Scenarios

Beyond the standard analysis and affordability estimations, presented so far, the Cost of the Diet (CotD) software allows the modelling of different interventions / hypothetical scenario and assess its effect on the cost and affordability of diet. The CotD modelling can be performed by changing background parameters based on the model assumptions in the analysis phase. These background parameters may include, food price in different seasons, nutrient composition, number of household members, household composition, household income, expenditure, social protection schemes and availability of free or subsidised food. Such models can illustrate the potential for interventions to improve the diet either through nutritional interventions or by poverty alleviation.

In this report, a total of 11 interventions or 'what if' scenarios were modelled to examine the effects on the cost, composition, quality and affordability of the diet:

- Modelling the potential effect of nutrition interventions (7)
- Modelling the potential effect of social protection interventions with nutrition interventions (4)

1. Modelling the potential effect of nutrition interventions on the cost and affordability of diets

To understand the likely effect of nutrition interventions on the cost and affordability of diets, the following scenarios were modelled:

- Scenario 1: Take-Home-Ration (THR) for Children and Pregnant/Lactating Women
- Scenario 2: Public Distribution System (PDS) for Family
- Scenario 3: Iron Folic Acid Supplementation (IFA) for Children, Adolescents and PLW
- Scenario 4: Eggs (5 per week) for Children (proposed)
- Scenario 5: THR+PDS
- Scenario 6: THR+PDS +IFA
- Scenario 7: THR + PDS + IFA + Eggs

Table 10 depicts the standard norms and optimization assumed for each of the above mentioned models.

Table 10 Standard norms considered and optimization assumed for modelling the potential effect of nutrition interventions on the affordability of diets

Interventions considered for modelling	Standard norms	Optimization assumed for modelling
IFA for Children	20 mg Iron 100 mcg Folic Acid per day	Universal
IFA for P&L	60 mg Iron 500 mcg Folic Acid per day	Universal
IFA for Adolescent girl	100 mg Iron 500 mcg Folic Acid per day	Universal
THR for Children	Pigeon Pea, roasted 30 g per day Potato 100g per day Rice 50g per day Roasted Peanut 30g per day Jaggery, sugarcane, 30g per day	Universal
THR for P&L	Pigeon Pea, roasted 30 g per day Potato 125g per day Rice 100g per day Roasted Peanut 40g per day Jaggery, sugarcane, 25g per day	Universal
Egg in SNP	5 eggs per week	Universal
PDS	Rice 21 kg (Rs.1/kg) Wheat 14 k	Universal

The potential effect of different modelling scenario on the cost of EO diet, MAC Diet, NUT Diet and FHAB diet is depicted in Table 11 below.

Table 11: Cost of different diets by Modelling Scenario

Modelling	EO Diet (INR)	MAC Diet (INR)	NUT Diet (INR)	FHAB (INR)
Standard Analysis	92.97	95.00	150.75	193.50
THR	69.30	70.74	115.25	167.90
PDS	37.91	39.25	83.38	151.43
IFA	83.72	85.40	129.15	186.42
Eggs	82.53	84.18	127.65	182.33
THR+PDS	32.52	33.94	77.67	140.81
THR+PDS+IFA	32.52	33.94	76.82	140.80
THR+PDS+IFA+Eggs	31.83	33.21	74.76	136.79

As shown in Figure 15, the cost of FHAB diet can be reduced by 13% through supplementation of Take Home Ration for Children and Lactating Women. There is a reduction of nearly 22% in the cost of FHAB diet if uptake of PDS services is utilized optimally. Whereas if there is optimal uptake

of both, THR and PDS, there can be over 27% reduction in the cost of the diet. Similarly, if the uptake of all interventions, i.e. supplementation of THR, PDS, IFA and the proposed intervention of supplementation of Eggs is improved to universal coverage, the cost of food habits nutritious diet can be reduced to almost 30%.

Figure 15: Potential effect of modelling on estimated cost of FHAB diet by scenarios

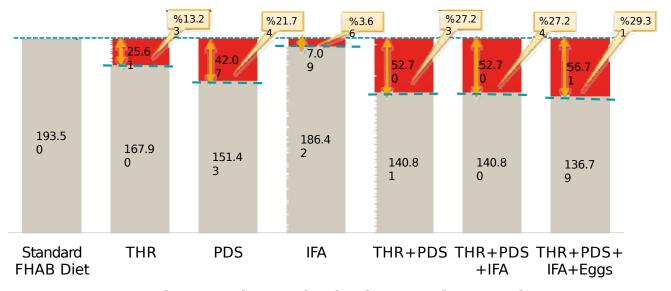
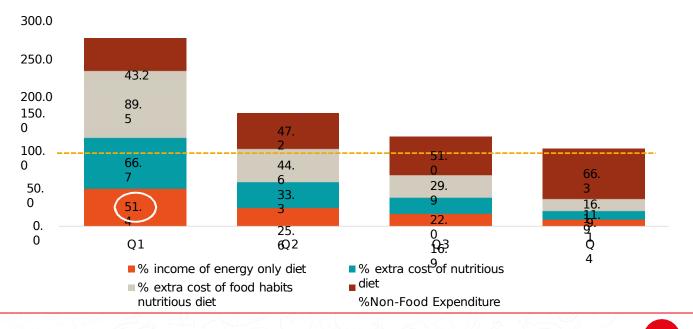



Figure 16 shows the potential effect of modelling scenarios on the affordability of the diets for four different income quartiles. The results show that, households belonging to quartile 1 cannot afford a food habit nutritious diet. This result implies that households from quartiles 1, 2 and 3 can only afford to purchase a portion of the FHAB after meeting the non-food expenditure. Alternatively, if the households buy full FHAB diet for all its members, only quartile 4 will be able to afford to meet the non-food expenditures.

Figure 16: Potential effect of modelling on estimated affordability of different diet types and non-food expenditure by income quartiles

2.Modelling the potential effect of social protection interventions with nutrition interventions on the affordability of diets

To understand the likely effect of social protection interventions along with nutrition interventions on the affordability of diets, the following scenarios were modelled:

- Scenario 1: Mahatma Gandhi National Rural Employment Guarantee Act (MNREGA) + THR + PDS + IFA + Eggs
- Scenario 2: MNREGA + Old Age Pension Scheme + THR + PDS + IFA + Eggs
- Scenario 3: MNREGA + Old Age Pension Scheme + Livelihood Mission Benefits + THR + PDS + IFA + Eggs
- Scenario 4: MNREGA + Old Age Pension Scheme + Livelihood Mission Benefits + Child Grant + THR + PDS + IFA + Eggs

Interventions considered for modelling	Standard/Suggested norms	Optimization assumed for modelling
MNREGA	202 INR per day for 90 days for quartile 1 and 2.	Universal
Old Age Pension Scheme	600 INR per month for 12 months for quartile 1	Universal
Livelihood Mission Benefits	1000 INR per month for 12 months for quartiles 1 and 2 (estimated)	Universal
Child Grant	500 INR per month per child for 2 children for 2 years (proposing a new scheme)	Universal

To estimate the potential impact of social protection interventions on the affordability of the diet, the allowance was added to the annual income of households (Table 12). It is important to note that, this model makes a couple of assumptions: (i) the household will receive the allowance in every month of the year, and (ii) the received amount will be spent on household food purchase only. However, in reality, the eligible and selected beneficiaries might not receive the allowance for the whole year and the amount received might not be spent on food alone, due to other competing priorities at the household level.

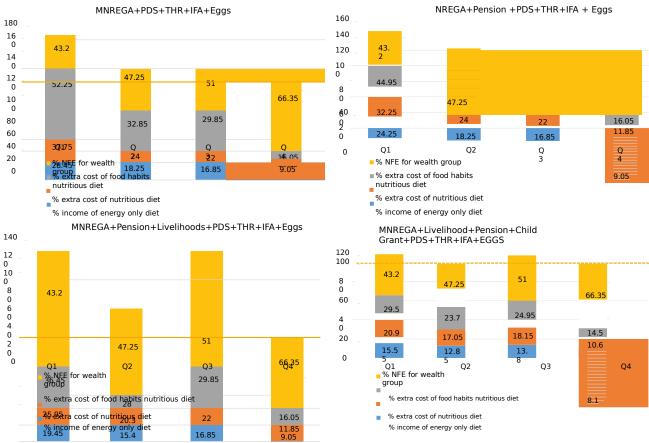
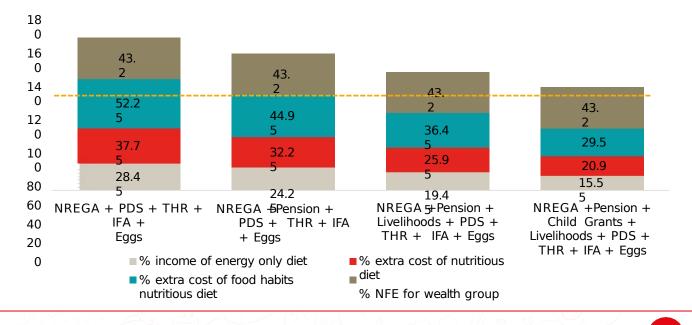
Figure 17: Potential effect of modelling on estimated affordability of different diet types and non-food expenditure by income quartiles

As shown in Figure 17 and 18, the estimated affordability of different diet types and non-food expenditure can be improved with optimum access to nutrition and social protection schemes. Particularly, these benefits can help quartile 1 to maintain a nutritionally adequate diet suiting to their dietary preferences.

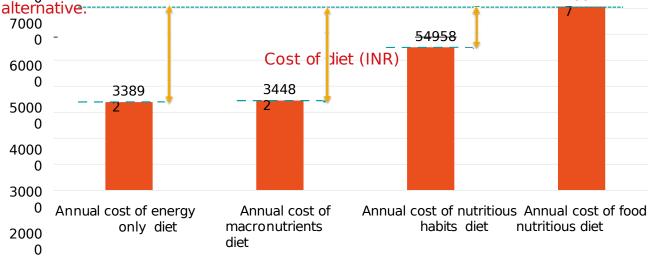
Figure 18: Potential effect of nutrition interventions and social protection schemes on estimated affordability of different diets and non-food expenditure of Quartile 1

CHAPTER

DISCUSSION AND RECOMMENDATIONS

4. Discussion and Recommendations

1. **Food availability and diversity in West Singhbhum:** The cost of the diet data collection team found a total of 196 food items in the assessment area combining all three seasons. Apart from foods available in the market, the region is known to be rich in flaura and fauna and is known to consume many indigenous food items growing within their living spaces and around. Considering the evidence, the study concludes that the availability of nutrient-rich foods is not the main barrier to typical poor households obtaining a nutritious diet. **Promotion of kitchen gardening, forest foods and household food production will improve access to low cost nutritious foods, thereby minimising the cost and affordability gap.**

2. **Limiting nutrients:** Overall, the markets in West Singhbhum have a diverse range of food items and can fulfil all major macro and micronutrient requirements. The analysis did not identify any limiting nutrients in the assessment zone; however, calcium was found to be most difficult to obtain, i.e. the most significant cost driver, followed by vitamin B12. The programme should **consider promoting the consumption of milk and milk products, and small fish by all family members,** especially by pregnant and breastfeeding women, children below two years old and adolescent girls. **Consumption of iron folic acid (IFA) tablets in the recommended quantity** by pregnant and breastfeeding women should help fulfil the folic acid requirement, and potentially reduce diet cost by 4%.

3. **Local dietary habit and cost of the nutritious diet:** The results from the cost of various diets show that the minimum cost nutritious (NUT) diet was 1.6 times more expensive than the energy only (EO) diet, meaning that it requires at least 1.6 times more money to meet all (used in the analysis) nutrient requirements. However, given that NUT diet is the theoretical minimum cost nutritious diet, and doesn't take into consideration the local dietary practices, it is important to focus on the food habit nutritious (FHAB) diet. The FHAB diet was 2 times more expensive than the EO diet, and 1.3 times more expensive than NUT diet, which means the constraints applied during the CotD analysis to reflect the typical dietary pattern in West Singhbhum have made the software to include a comparatively higher priced alternative.

Having said that, the food items selected for the FHAB diet were still one of the cheapest options available in the markets, and have identified culturally acceptable cheap sources of nutrients. The cost of food habits nutritious diet (FHAB) should be used as a benchmark to track the progress of beneficiary groups in upcoming socio-economic assessments and observe changes in affordability gap to assess whether new initiatives have worked.

The programme through its **SBCC activities can promote the consumption of cheaper nutrient-rich foods.**

4.Household income, expenditure and affordability of nutritious diet: One of the most powerful uses of the cost of the diet analysis is to assess the likely impact of nutrition specific interventions and nutrition sensitive social protection interventions on household affordability of the nutritious diet and ultimately nutritional status. Government programmes for key nutrition specific interventions have the potential to reduce the cost of the food habits nutritious diet by 30%. Consumption of iron folic acid (IFA) tablets in the recommended quantity by pregnant and breastfeeding women should help fulfil the folic acid requirement, and potentially reduce diet cost by 4%. Therefore, we need to increase the momentum to deliver these interventions with Coverage, Continuity, Intensity and Quality (C2IQ) as envisaged under the POSHAN Abhiyaan and Anemia Mukt Bharat.

5.Improve the coverage and continuity of key nutrition sensitive social protection schemes (NSSPS): Government programmes for key nutrition specific interventions have the potential to reduce the cost of the food habits nutritious diet by 30%. Consumption of iron folic acid (IFA) tablets in the recommended quantity by pregnant and breastfeeding women should help fulfil the folic acid requirement, and potentially reduce diet cost by 4%. India has witnessed a substantial improvement in the coverage of nutrition-specific interventions between 2006 and 2016. However, the coverage is still sub-optimal. Data from our study on coverage of social protection schemes highlights that only 59% of the targeted eligible population accessed PDS in last three months from the date of the survey. Access to MNREGA was also very low (10.1%). The payment of pension schemes was reported to be irregular. Similarly, the coverage of Jharkhand State Livelihood Promotion Society (JSLPS) and Project Johar is low – though progress has been made by mobilizing local community, formation of groups and capacity-building on livelihood skills, only 2% have reported to have received tangible benefits (cash/kind) from these interventions contributing to an improvement in their livelihood status. Therefore, we need to increase the momentum to deliver these interventions with Coverage, Continuity, Intensity and Quality (C2IQ) as envisaged under the POSHAN Abhiyaan and Anemia Mukt Bharat.

6.Improve the benefit size of schemes: Key Nutrition Sensitive Social Protection Schemes, which have the potential to improve the household income (like PMMVY, MNREGA, Pension), need to revisit its benefit size. Increase in current daily wages from INR 202 to INR 242 in MNREGA has the potential to improve the affordability of the lowest quartile by 17.8%. Similarly, doubling the benefits of social pensions will help improve affordability of the lowest quartile by 25.3%.

7.Substantial improve in the design of PMMVY: Pradhan Mantri Matru Vandana Yojana (PMMVY), which is cash compensation for pregnant and lactating women to improve its dietary practices would improve security and continuity at the household level food security, should revisit its benefit size and payment

b) Beneficiary has to wait for 15 months for receiving the full payment of INR 5000 (excluding the JSY component) as the money is received in three instalments. c) INR 5000 in 15 months equals to per month wage compensation of INR 333.33 (~1.5 days wage as per MNREGA current wage rate), which is very less to ensure nutrition.

4.8 Additional Child Grant: Additional Child Grant for second child will help beneficiaries avail benefit of the scheme, in case the first child is miscarried or still born. Provision of cash transfer of INR 500 per month per child for 2 children for 2 years will contribute in reducing the poverty inflicts irreversible damage to children's physical and cognitive development – leading to substantial social and economic costs later in life resulting in lower incomes and reduced economic growth in the long term.

CHAPTER 5

CONCLUSI ON

5. Conclusion

The Cost of the Diet is a tool to develop thinking and stimulate debate about foods, nutrient sufficiency and nutrition security. The flexibility of the software to change the underlying parameters gives the potential to understand what nutrients drive the cost of meeting the RNI in any given locality and to examine the potential effects of changes in food availability and the importance of economic access to nutritious foods. The results from the Cost of the Diet assessment could be used in conjunction with other contextual information and data from nutrition and food security surveys to inform nutrition, food security, livelihoods and social protection programmes delivered by development agencies; to inform and influence nutrition and food security related policy; and to inform advocacy processes and debates.

The given assessment suggested that a nutritious diet that takes into account people's dietary habits is approximately 2 times more expensive than a diet that only meets energy requirements. The lowest cost diet takes into account typical dietary habits for a standard 6 persons HH in West Singhbhum (Jharkhand), that meets their nutrient requirements ranges from 162 to 212 INR per day.

Based on current access to nutrition and social protection schemes, very poor households cannot afford a nutritious diet as well as essential expenditure on non-food items. The availability of food is not a key barrier. The data collection team found 196 foods on the market in the West Singhbhum.

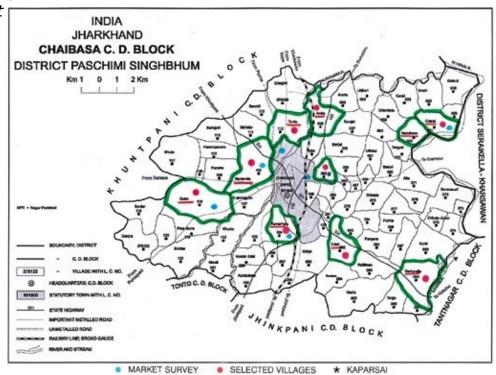
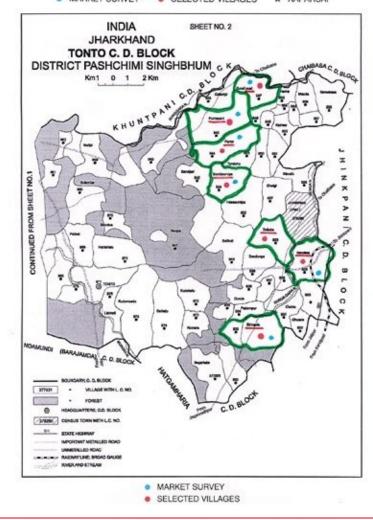
Social behaviour change and communication (SBCC) interventions aimed at mothers, husbands, mothers-in-laws and community or religious leaders are needed to improve feeding practices for pregnant and lactating women and children under the age of 5 years through development of augmented recipes consisting of locally available low-cost nutritious foods.

Further investment is needed in nutrition interventions and social protection schemes that increase income and improve nutrition outcomes.

ANNEXURES

MAPS & FRAMES

6. Annexures

Annex 1 Maps of blocks included in the assessment

Annex 2 List of market sites and names of the villages included in the assessment

Block	Market Sites	Villages
Tonto	Budh Bazar (Big Market)	
	Iliigara Bazar (Big Market)	Iliigara
	Shukra Bazar (Big Market)	Purnapani
	Sheregasia Bazar (Small Market)	Sheregasia
	Gundipusi Bazar (Small Market)	Gundipusi
	Merelguttu Bazar (Small Market)	Partol
	Lagiya Bazar (Big Market)	Lagiya
	Jorapokhar Bazar (Jhikpani) (Big Market)	
Chaibasa	Mangalahaat Bazar (Big Market)	
	Madhu Bazar (Big Market)	Kamarhatu
	Nagarhaat (Small Market)	Tantnagar
	Supal Sahi Chowk (Small Market)	Narsanda
	Kapparsain Chowk (Small Market)	Kapparsain
	Tambo Bazar (Big Market)	Tambo
	Guira Bazar (Small Market)	Guira
	Fandasali Chowk (Big Market)	

Profile of Selected Villages							
Chaibasa				Tonto			
Name of Villages	No. of House-holds	Total Popula-tion	Total Population 0 to 6 years	Name of Villages	No. of House-holds	Total Popula-tion	Total Popula-tion 0 to 6 years
Narsanda	1039	4841	777	Purnapani	481	2546	515
Tonto	685	3399	558	Siringsia	450	2017	367
Guira	444	2551	425	Dokata	384	1882	402
Tuibir	361	1900	305	Pertol	314	1653	290
Kamarhatu	348	1742	276	Baralisia	334	1649	316
Kaparsai	370	1713	261	Gundi Pusi	226	1183	241
Barkundia	331	1683	317	Sundisurniya	198	1001	159
Amita	203	1091	104				
Nakahasa	153	773	109				
Charai	106	473	70				

Source: Census of India, 2011, RGI

Sample Frame (No. of HHs)							
Block	**Census Village**	**Children below 2 years**	**Adolescent girls and boys (10 – 19 years)**	**Pregnant women and lactating mothers**	**All Three**	**Total (exclusive)**	
Chaibasa	Amita	33	5	1	0	**33**	**244**
	Barkundia	22	13	0	0	**22**	
	Charai and Nakahasa	27	6	8	0	**27**	
	Guira	14	4	1	0	**14**	
	Kamarhatu	18	6	0	0	**18**	
	Kaparsai	36	11	0	0	**36**	
	Narsanda	17	6	3	0	**17**	
	Tonto	37	14	0	0	**37**	
	Tuibir	40	5	1	0	**40**	
Tonto	Baralisia	27	10	8	2	**27**	**190**
	Dokata	27	12	7	2	**27**	
	Gundi Pusi	27	10	7	2	**27**	
	Pertol	27	11	6	2	**27**	
	Purnapani	28	9	5	1	**28**	
	Siringsia	27	9	9	4	**27**	
	Sundisurniya	27	7	8	0	**27**	
Total	16 Villages	434	138	64	13	**434**	**434**

Source: Study on "Income-Expenditure & Social Protection Schemes", 2020, Save the Children

Annex 3

Family members chosen from the WHO database of average energy requirement used to create households with low and high average energy requirements plus a household with an energy requirement closest to the number of people x 2,100 kcal (CotD family)

Household Member (Type)	Kcal per day	5 individuals			6 individuals			7 individuals			8 individuals		
		Low	CotD	High	Low	CotD	High	Low	CotD	High	Low	CotD	High
Child (either sex) 12-23 months	894	X	X	X	X	X	X	X	X	X	X	X	X
Child (either sex) 2-3 years	1,088	X			X			X			X		
Child (either sex) 3-4 years	1,200				X			X			X		
Child (either sex) 4-5 years	1,300					X		X			X		
Child (either sex) 5-6 years	1,400										X		
Child (either sex) 6-7 years	1,500												
Child (either sex) 7-8 years	1,625											X	
Child (either sex) 8-9 years	1,763								X				
Child (either sex) 9-10 years	1,913										X		
Child (either sex) 10-11 years	2,075		X						X				
Child (either sex) 11-12 years	2,250										X		
Child (either sex) 12-13 years	2,413								X				
Child (either sex) 13-14 years	2,575					X						X	X
Child (either sex) 14-15 years	2,725									X			X
Child (either sex) 15-16 years	2,838						X			X			X
Child (either sex) 16-17 years	2,913			X			X			X			X
Child (either sex) 17-18 years	2,950												
Man, 30-59y, 50 kg, light activity	2,300	X			X			X			X		
Man, 30-59y, 50 kg, moderately active	2,740		X			X			X			X	
Man, 30-59y, 60 kg, vigorously active	3,450			X			X			X			X
Woman, 30-59y, 45 kg, light activity (lactation, 7-12 months)	2,268	X			X			X			X		
Woman, 30-59y, 45 kg, moderately active (lactation, 7-12 months)	2,718		X			X			X			X	
Woman, 30-59y, 55 kg, vigorously active (lactation, 7-12 months)	3,268			X			X			X			X
Woman, >60y, 45 kg, light activity	1,700	X			X			X			X		
Woman, >60y, 45 kg, moderately active	2,050		X			X			X			X	
Woman, >60y, 55 kg, vigorously active	2,550			X			X			X			X

Annex 4: List and price of food available in the CotD assessment zone

List of Foods by Food Groups (Chaibasa)	Average Price Per 100g			
	Rabi	Zaid	Kharif	Annual Average
Grains and grain-based products				
Baba Aata, Muri (Rice, puffed,)	8.28	7.93	8.28	8.17
Dehati chawal (Rice, Brown, raw)	3.89	3.94	4.12	3.98
Gom Lupu (Wheat, flour, local or hyv)	3.22	3.63	4.04	3.63
Gom, mota (Wheat, flour, brown, wholegrain, raw)	2.96	2.96	3.46	3.13
Gom (Wheat, local)	2.56	2.6	2.63	2.6
Maida (Wheat, flour, maida)	3.84	3.93	4.01	3.93
Pau roti (Bread, white)	10.44	11.14	11.14	10.9
Semai, Sevai, bhunja hua (Vermicelli, cooked)	11.06	10.97	10.97	11.0
Semai, Sevai (Vermicelli)	9.43	9.08	9.06	9.19
Suji, Sooji (Semolina, wheat)	4.87	4.82	4.96	4.88
Taben, Chuda (Rice, flaked)	6.47	6.4	6.81	6.56
Usna Chawal (Rice, parboiled, milled,)	2.97	2.89	3.11	2.99
Roots and tubers				
Aloo, Potato (Potato)	2.21	2.68	3.32	2.73
Beet, Chukandar (Beet root, red, raw)	6.38	8.02	9.33	7.91
Hathi Sanga, Ole, Khumadu (Taro, giant, raw)	3.54	3.54	5	3.68
Ole, Haada (Elephant foot, raw)	9.73	13.03	17.01	12.45
Pitadu Sanga (Yam, elephant or goa, raw)	21.69	52	52	33.82
Sabu dana (Sago palm, starch)	16.67	16.67	16.67	16.67
Sanga, Laal (Sweet potato, purple skin, pale yellow flesh, raw)	4.33	4.71	5.17	4.6
Sanga, Safed (Sweet potato, white flesh, raw)	3.82	3.73	3.37	3.68
Saru, Aalu (Colocasia or taro, raw)	4.12	5.03	7.72	5.21
Legumes, nuts and seeds				
Akhrot (Walnuts)	7.25	7.25	7.25	7.25
Chana ki dal (Bengal gram, dehulled, split)	7.74	8.33	7.74	7.93
Chana (Bengal gram, whole)	6.91	7.06	9.02	7.66
Chini badam (Peanut)	11.37	11.78	12.4	11.85
Jhenga Simdi (Field beans, tender, lean)	6.1	10.31	7.82	8.16
Jiling Rambha Jhang (Cowpea)	28.36	28.36	29.61	28.78
Kabuli Chana, Sadom Chana (Chickpea)	9.89	10.69	10.83	10.47
Kaju (Cashew nut, raw)	76.99	81.55	69.6	76.04
Kakharu Jhang (Pumpkin, seeds, dried)	186.8	186.8	186.8	186.8
Kurthi Dali, Kulthi Dali (Horse gram, whole)	9.06	9.06	9.06	9.06
Magrela, Kala til (Sesame, seeds,	23.29	22.88	22.88	23.01

List of Foods by Food Groups (Chaibasa)	Average Price Per 100g			
	Rabi	Zaid	Kharif	Annual Average
Moong, Hara (Green gram, whole)	23.5	22.92	23.21	23.21
Motora Chana (Pea, dry)	7.49	7.38	8.27	7.71
Pista Badam (Almonds)	75.14	77.49	77.49	76.7
Pista (Pistachio nuts, dried)	58.6	62.96	67.8	63.12
Pundi Simdi (Field bean, tender, broad)	4.76	5.93	5.63	5.41
Rahadi dali, Arhar dal (Red gram, split)	10.24	10	10.54	10.26
Rahadi, Arhar (Red gram, whole)	9.57	9.57	9.82	9.66
Rajma (Bean, kidney)	9.44	9.44	9.44	9.44
Rambha Dali, Urad dal (Black gram, split, dal)	10.58	10.33	11.13	10.68
Simidi jhang, Jhatua (Bean, field)	5.22	5.22	5.22	5.22
Soyabean (Soybean)	11.56	11.78	11.25	11.53
Unchi, Tisi (Linseed)	18.52	18.52	16.81	17.95
Urad, Rambha (Black gram, whole)	12.82	12.82	12.82	12.82
Meat and offal				
Desi Sim (Chicken, Country)	35.41	34.54	34.69	34.88
Dudulum jilu (Pigeon, meat, raw)	47.34	45.82	45.82	46.28
Kono jilu (Duck, meat, raw)	32.05	29.31	31.93	31.1
Kulei, Kharghosh (Rabbit, raw)	67.17	67.17	67.17	67.17
Meron Mayom (Goat, blood, coagulated)	9.42	9.42	9.42	9.42
Meron Pachaoni (Goat, intestines and stomach, raw)	22.18	22.18	22.18	22.18
Meron/Bhed Kaleja (Lamb or mutton, liver, raw)	46.18	46.18	45.67	46.01
Meron (Goat)	62.78	62.78	62.62	62.73
Poultry Sim, Boiler Sim (Chicken, Poultry)	12.79	11.74	11.52	12.01
Sim Kaata (Chicken, leg, without skin, raw)	16.39	15.8	15.36	15.84
Sim Kaleja (Chicken, liver, raw)	16.43	16.08	15.96	16.16
Sim Kuem (Chicken, breast, without skin, raw)	17.59	16.54	16.11	16.75
Sukuri Etil Lai (Pork, belly, raw)	20.3	19.2	19.2	19.56
Sukuri jilu (Pork)	18.67	17.59	16.89	17.72
Sukuri Kaleja (Pork, liver, raw)	13.64	12.94	12.94	13.17
Sukuri Panjarajhang (Pork, back ribs, raw)	15.86	14.86	14.86	15.19
Sukuri Tarang (Pork, shoulder, raw)	16.05	15.04	15.04	15.37
Fish, seafood, amphibians and invertebrates				
Ghenga (Snail)	3.01	3.01	2.56	2.86
Ginche, Genda (Clam, raw)	5.08	5.08	4.61	4.92
Howku (Red ant)	42.53	42.53	42.53	42.53
Huding Iche haku, chingri chota (Prawn, indian white, raw)	40.37	40.37	40.37	40.37
Katla haku (Fish, catla, raw)	18.25	18.47	17.34	18.02

List of Foods by Food Groups (Chaibasa)	Average Price Per 100g			
	Rabi	Zaid	Kharif	Annual Average
Rui haku (Fish, rohu, river, raw)	23.45	22.03	21.66	22.38
Eggs and egg products				
Kono Jharom (Egg, duck, whole, raw)	26.23	23.88	21.53	23.78
Sim Jharom Desi (Egg, chicken, native, raw)	22.84	19.91	21.64	21.42
Sim Jharom Poultry (Egg, chicken, farmed, raw)	11.92	9.72	11.69	11.11
Milk and milk products				
Dahi (Milk, curds)	10.83	12.45	10.97	11.42
Lassi (Buttermilk)	11.14	12.12	11.14	11.47
Paneer (Cheese, cottage)	34.53	34.53	34.53	34.53
Uri Toa, Gai ka doodh (Milk, cow, whole fat, pasteurised, UHT)	4.31	4.36	4.31	4.32
Vegetables and vegetable products				
Bah Kobi Patta (Leaf, collard greens)	3.18	4.27	5.03	4.11
Bah Kobi (Cauliflower)	7.85	9.54	10.48	9.29
Band Kobi, Gobhi (Cabbage, green)	6.55	7.7	8.78	7.68
Bathua Aa (Bathua Leaves)	16.3	18.01	22.78	18.69
Beans (Bean, french)	7.35	8.61	9.43	8.46
Berel Bindi (Papaya, raw)	3.68	7.99	12.49	8.05
Berel kadal (Plantain, raw)	17.87	23.88	26.23	22.66
Chapta Simidi (Broad beans)	7.62	8.86	13.02	9.2
Daru Binga, Bada gol (Brinjal, Large round)	4.25	5.41	6.84	5.44
Daru Binga, huding/chhota (Brinjal, small)	3.59	4.37	5.31	4.42
Daru Binga, lamba (Brinjal, purple, long)	5.3	6.09	7.09	6.16
Gaanth Kobi (Knol-Khol)	4.05	8.1		6.07
Gajar (Carrot, raw)	5.27	7.73	9.76	7.59
Gol Kakaru (Pumpkin)	4.34	5.1	7.87	5.77
Ipil Aa, Pundi Ipil, Jhenga Ipil (Gogu leaves, red/green)	1.91	1.91	3.82	2.54
Jhiling Juni (Gourd, snake)	24.25	35.67	24.25	28.06
Jhinga Mula (Radish, red)	2.53	4.1	5.9	4.06
Jojo Patta, Jojo Aa (Tamarind leaves)	16.39	32.78	40.97	30.05
Kakaru Aa (Pumpkin leaves)	21.41	28.9	43.9	31.4
Kakaru (Ash gourd)	2.7	3.2	4.94	3.41
Karela (Gourd, bitter)	11.09	12.33	12.74	12.05
Kheera, Kakdi (Cucumber)	4.93	5.87	6.27	5.69
Kudrum (Roselle)	3.8	3.24	3.25	3.56
Kundri, Kundru (Ivy Gourd)	4.23	5.42	4.62	4.76
Lau (Gourd, bottle)	2.65	3.6	3.43	3.23
Menda Singa, Mindi Diring, Bhindi (Ladies finger)	10.34	9.13	8.73	9.4
Methi Aa (Leaf, fenugreek)	5.37	8.13	6.33	6.64

List of Foods by Food Groups (Chaibasa)	Average Price Per 100g			
	Rabi	Zaid	Kharif	Annual Average
Motora (Peas, raw)	6.99	7.76	8.48	7.6
Mula Aa (Radish leaves)	9.31	10.64	10.58	10.18
Mulga Aa (Drumstick leaves)	7.4	7.4	7.4	7.4
Mulga Suti (Drumstick)	8.45	16.9	25.36	16.9
Paan Patta (Leaf, betel)	40.8	40.8	40.8	40.8
Palki Aa, Palak (Spinach, raw)	6.24	8.09	7.97	7.42
Potol (Pointed Gourd)	8.66	9.44	10.64	9.58
Pui Aa (Basella leaves)	2.22	3.33	3.33	2.96
Pundi Mula (Radish, white, root and leaves, raw)	2.74	4.72	4.25	3.9
Pyaji Aa (Onion, with stalks)	5.41	5.55		5.48
Pyaji (Onion)	11.17	7.57	7.78	8.84
Saru Patta, Pechki Saag (Colocasia leaves, green)	5.32	4.63	6.24	5.4
Seera Juni, Tarai (Gourd, ridge)	6.16	6.19	7.81	6.72
Serso Aa, Mani Aa (Mustard leaves)	2.63	3.24	3.4	3.09
Shimla Mirch, Shimla Marchi (Capscicum, green)	6.66	8.78	8.31	7.92
Tote, Leper Aa, Jinga Leper Aa (Amaranth Leaves, green/red/mix/spined)	2.26	2.91	3.62	2.9
Fruit and fruit products				
Anaar (Pomegranate, ripe, with seed)	13.98	18.57	22.08	18.21
Dambhao, Mandal (Custard Apple)	3.09	3.09		3.09
Gota Jojo (Tamarind)	31.73	31.73	44.79	36.08
Hende Angur (Grapes, Black)	13.23	12.28	14.58	13.36
Huding Seb (Apple, Small)	7.93	11.61	12.31	10.62
Jhenga Amrud, Laal Amrud (Guava, green)	4.87	5.45	7.73	5.61
Khejur, Kita (Dates, processed)	20.2	20.2	23.52	21.31
Kishmish (Raisin)	37.55	37.55	46	40.37
Lua (Fig, ripe)	12.79	12.79	12.79	12.79
Maram Bakhra (Jujube)	5.01	5.82	4.95	5.35
Mata Belati (Tomato, ripe)	2.92	3.67	4.03	3.54
Mata Bindi (Papaya, ripe)	4.02	5.76	6.02	5.27
Mata Kadal (Banana, ripe)	11.41	11.15	12.61	11.72
Merel Joh, Amla (Gooseberry)	4.97	4.89	9.79	5.92
Nariyal Dah (Coconut, water)	9.06	9.4	9.1	9.19
Nariyal (Coconut, kernel fresh)	9.19	9.81	10.55	9.85
Patarong Angur (Grapes, pale green)	13.02	11.7	16.17	13.63
Pundi Amrud (Guava, white)	12.05	22.8	14.63	16.5
Ro Khejur, Ro Kita (Dates, dried, pale brown)	5.04	5.04	5.04	5.04
Ro Nariyal (Coconut, dried)	6.35	6.35	6.35	6.35
Santra (Orange)	9.68	11.27	15.74	11.79

List of Foods by Food Groups (Chaibasa)	Average Price Per 100g			
	Rabi	Zaid	Kharif	Annual Average
Seb (Apple)	11.26	14.84	14.88	13.66
Suti Jojo (Tamarind, pulp, sweet, ripe)	39.3	45.27	84.57	56.38
Oils and fats				
Badam Sunum (Oil, peanut)	10.76	10.89	10.48	10.71
Dalda (Oil, hydrogenated)	23.19	27.21	22.81	24.4
Joto Bindi Sunum (Oil, castor)	67.2	67.79	67.46	67.48
Serso Sunum (Oil, mustard)	16.29	13.37	14.76	14.8
Soyabean Sunum (Oil, soybean)	10.04	9.34	9.23	9.54
Surajmukhi Sunum (Oil, sunflower)	20.29	20.29	20.29	20.29
Sugars and confectionary				
Biscuit Namkeen (Biscuits, salty)	9.34	9.62	9.46	9.47
Chini (Sugar, white)	8.88	9.68	9.61	9.39
Gur Danda Rasi (Sugarcane, juice)	8.32	8.32	8.32	8.32
Gur Danda (Sugarcane)	2.44	3.16	2.36	2.65
Gur (Jaggery, sugarcane, solid)	5.15	6.85	5.48	5.83
Herbs, spices and condiments				
Ada, Adrak (Ginger root, raw)	17.6	30.59	31.63	26.61
Bulunc (Salt)	1.1	1.17	1.1	1.12
Dhaniya Gunda (Coriander leaf, powder)	22.61	24.79	28.89	25.43
Dhaniya Jhang (Coriander, seeds)	26.48	26.99	25.69	26.39
Dhaniya Patta (Coriander leaf, raw)	9.23	15.54	12.05	12.27
Elaichi (Cardamom, seeds)	236.13	243.13	222.8	234.02
Gol ki, Goti Marchi (Pepper, black)	83.1	93.86	92.82	89.93
Gota Marchi (Chilli, green, raw)	15.23	17.27	17.05	16.51
Jaiphol (Nutmeg, dried)	234.82	179.61	252.18	222.21
Jeera (Cumin, seeds)	76.15	82.93	82.72	80.6
Jhenga Roh Marchi (Chilli, red, dry)	43.26	47.9	47.48	46.21
Kari Patta (Curry Leaves)	29.46	14.73	14.73	19.64
Lal Marchi Gunda (Chilli powder, red)	23.7	26.96	22.28	24.31
Laung (Cloves, dried)	177.86	201.62	199.44	192.98
Limbu (Lemon or lime)	12.68	16.13	19.4	16.07
Methi Jhang (Fenugreek, seeds)	16.36	21.33	23.07	20.25
Navgot Limbu (Lime, sweet)	9	11.27	9.83	10.03
Poshto (Poppy, seeds)	87.05	95.76	92.44	91.75
Rasui, Lehsun (Garlic, raw)	22.87	23.15	24.48	23.5
Sasang (Turmeric, dried)	41.42	45.41	43.53	43.46
Saunf Jhang (Fennel, seeds)	25.33	28.9	28.32	27.51
Serso Jhang (Mustard, seeds)	15.86	18.91	19.08	17.95
Tej Patta (Bay leaf, dried)	26.88	29.58	29.54	28.67
Beverages				
Hadiya (Rice Beverage)	0.81	0.97	0.75	0.84
Tadi Rasi (Toddy, palm sap, fermented)	6.79	6.79	8.5	7.36

List of Foods by Food Group (Tonto Block)	Average Price Per 100g (INR)			
	Rabi	Zaid	Kharif	Annual Average
Grains and grain-based products				
Baba Aata, Muri (Rice, puffed,)	13.87	13.87	13.87	13.87
Dehati chawal (Rice, Brown, raw)	2.54	2.56	2.7	2.6
Gom Lupu (Wheat, flour, local or hyv)	2.85	3.32	3.18	3.1
Gom, mota (Wheat, flour, brown, wholegrain, raw)	3.49	3.49	3.49	3.49
Gom (Wheat, local)	2.99	4.24	3.94	3.72
Maida (Wheat, flour, maida)	3.26	3.98	4.21	3.8
Pau roti (Bread, white)	6.72	6.72	6.72	6.72
Semai, Sevai, bhunja hua (Vermicelli, cooked)	24.77	24.77	24.77	24.77
Semai, Sevai (Vermicelli)	8.67	8.67	8.67	8.67
Suji, Sooji (Semolina, wheat)	4.12	4.36	4.11	4.19
Taben, Chuda (Rice, flaked)	4.87	5.16	5.04	5.02
Usna Chawal (Rice, parboiled, milled,)	2.64	2.66	3.18	2.82
Roots and tubers				
Aloo, Potato (Potato)	1.9	2.3	2.67	2.29
Beet, Chukandar (Beet root, red, raw)	7.07	7.07	6.18	6.77
Hathi Sanga, Ole, Khumadu (Taro, giant, raw)	2.41	2.41	2.36	2.4
Meromtoa Sanga, Khumadu (Yam, raw)	3.19	5.01	2.51	3.48
Ole, Haada (Elephant foot, raw)	3.27	3.91	3.21	3.54
Sanga, Laal (Sweet potato, purple skin, pale yellow flesh, raw)	2.95	3.08	2.68	2.95
Sanga, Safed (Sweet potato, white flesh, raw)	2.35	2.47	2.31	2.39
Saru, Aalu (Colocasia or taro, raw)	4.2	4.21	3.36	3.96
Legumes, nuts and seeds				
Chana ki dal (Bengal gram, dehulled, split)	9.11	10.46	11.39	10.3
Chana (Bengal gram, whole)	8.15	8.6	8.42	8.38
Chini badam (Peanut)	12.87	12.67	12.69	12.74
Jhenga Simdi (Field beans, tender, lean)	4.83	8.57	5.02	6.33
Jiling Rambha Jhang (Cowpea)	91.19	91.19	91.19	91.19
Kabuli Chana, Sadom Chana (Chickpea)	8.36	7.97	10.84	9.26
Kakharu Jhang (Pumpkin, seeds, dried)	146.5	146.5	146.5	146.5
Kurthi Dali, Kulthi Dali (Horse gram, whole)	8.8	8.8	8.8	8.8
Magrela, Kala til (Sesame, seeds, black)	46.8	46.8	46.8	46.8
Malan, Guar Fali (Bean, cluster)	18.44	19.54	19	19.0
Masoori Dali (Lentil, dal)	7.13	7.2	7.14	7.15
Moong Dal, Hari (Green gram, split,	10.74	10.27	10.74	10.58

List of Foods by Food Group (Tonto Block)	Average Price Per 100g (INR)			
	Rabi	Zaid	Kharif	Annual Average
Pundi Simdi (Field bean, tender, broad)	4.68	5.35	5.83	5.25
Rahadi dali, Arhar dal (Red gram, split)	9.86	16.05	14.48	13.42
Rahadi, Arhar (Red gram, whole)	9.38	9.37	9.38	9.38
Rajma (Bean, kidney)	8.59	8.59	8.59	8.59
Simidi jhang, Jhatua (Bean, field)	17.67	17.67	17.67	17.67
Soyabean (Soybean)	11.55	11.73	12.16	11.81
Unchi, Tisi (Linseed)	12.03	12.03	12.03	12.03
Urad, Rambha (Black gram, whole)	9.24	9.53	9.24	9.34
Meat and offal				
Desi Sim (Chicken, Country)	39.57	37.88	38.52	38.66
Dudulum jilu (Pigeon, meat, raw)	52.25	49.82	49.94	50.67
Kono jilu (Duck, meat, raw)	34.9	33.26	33.99	34.05
Kulei, Kharghosh (Rabbit, raw)	74.57	69.08	84.53	76.06
Meron Mayom (Goat, blood, coagulated)	9.7	9.7	9.7	9.7
Meron Pachaoni (Goat, intestines and stomach, raw)	15.15	13.07	11	13.07
Meron/Bhed Kaleja (Lamb or mutton, liver, raw)	23.81	22.51	21.8	22.71
Meron (Goat)	46.83	41.44	44.13	44.14
Poultry Sim, Boiler Sim (Chicken, Poultry)	15.95	14.24	14.46	14.89
Sim Kaata (Chicken, leg, without skin, raw)	19.34	17.1	17.27	17.9
Sim Kaleja (Chicken, liver, raw)	16.72	15.34	15.42	15.83
Sim Kuem (Chicken, breast, without skin, raw)	15.96	14.34	14.71	15.0
Sukuri Etil Lai (Pork, belly, raw)	19.54	18.43	17.32	18.43
Sukuri jilu (Pork)	17.56	15.03	15.86	16.15
Sukuri Kaleja (Pork, liver, raw)	12.84	12.02	11.86	12.24
Sukuri Panjarajhang (Pork, back ribs, raw)	14.93	13.18	13.43	13.85
Sukuri Tarang (Pork, shoulder, raw)	15	13.25	13.48	13.91
Fish, seafood, amphibians and invertebrates				
Ghenga (Snail)	4.21	3.75	3.29	3.75
Howku (Red ant)	29.29	29.29	29.29	29.29
Huding Iche haku, chingri chota (Prawn, indian white, raw)	38.77	38.77	38.77	38.77
Katla haku (Fish, catla, raw)	18.04	18.17	15.59	17.27
Ro haku (Dried Fish (small / big))	37.58	38.9	34.85	37.11
Rui haku (Fish, rohu, river, raw)	17.44	15.87	15.47	16.26
Eggs and egg products				
Kona Jhanam (Egg, duck, whole, raw)	25.37	25.01	25.37	25.25

List of Foods by Food Group (Tonto Block)	Average Price Per 100g (INR)			
	Rabi	Zaid	Kharif	Annual Average
Sim Jharom Desi (Egg, chicken, native, raw)	23.83	19.68	26.49	23.33
Sim Jharom Poultry (Egg, chicken, farmed, raw)	12.36	10.7	11.8	11.62
Milk and milk products				
Vegetables and vegetable products				
Bah Kobi Patta (Leaf, collard greens)	2.47	2.74	3.02	2.74
Bah Kobi (Cauliflower)	3.64	4.44	4.09	4.05
Band Kobi, Gobhi (Cabbage, green)	3.59	3.74	4.39	3.89
Bathua Aa (Bathua Leaves)	2.85	3.53	3.18	3.18
Beans (Bean, french)	5.9	7.28	7.95	7.04
Berel Bindi (Papaya, raw)	10.22	18.79	26.29	18.43
Berel kadal (Plantain, raw)	3.54	3.54	3.86	3.65
Chapta Simidi (Broad beans)	5.03	6.45	5.07	5.5
Daru Binga, Bada gol (Brinjal, Large round)	3.72	4.56	4.09	4.12
Daru Binga, huding/chhota (Brinjal, small)	3.34	4.63	3.21	3.77
Daru Binga, lamba (Brinjal, purple, long)	3.32	4	3.56	3.63
Gaanth Kobi (Knol-Khol)	5.05	8.9	3.32	6.14
Gajar (Carrot, raw)	4.65	6.99	7.09	6.25
Gol Kakaru (Pumpkin)	2.43	2.71	2.03	2.44
Ipil Aa, Pundi Ipil, Jhenga Ipil (Gogu leaves, red/green)	2.75	2.83	3.05	2.88
Jhiling Juni (Gourd, snake)	3.06	3.77	7.03	4.14
Jhinga Mula (Radish, red)	2.51	2.7	2.1	2.5
Kakaru Aa (Pumpkin leaves)	4.33	3.75		4.22
Kakaru (Ash gourd)	2.43	2.45	1.94	2.32
Kakharu Aa (Garden cress)	4.44	4.44		4.44
Karela (Gourd, bitter)	4.12	5.17	5.14	4.81
Kheera, Kakdi (Cucumber)	4.43	2.22	4.43	3.69
Kudrum (Roselle)	3.75	3.75	4.7	3.82
Kundri, Kundru (Ivy Gourd)	2.66	3.27	3.45	3.13
Lau (Gourd, bottle)	2.48	2.88	3.22	2.86
Maad helta (Bamboo shoot, tender)	5.48	5.48		5.48
Menda Singa, Mindi Diring, Bhindi (Ladies finger)	5.74	6.05	4.17	5.32
Methi Aa (Leaf, fenugreek)	4.49	4.92	7.41	5.2
Motora (Peas, raw)	5.08	5.43	5.11	5.21
Mula Aa (Radish leaves)	1.8	2.75	1.9	2.17
Mulga Aa (Drumstick leaves)	1.73	2.32	2.03	2.03
Palki Aa, Palak (Spinach, raw)	2.76	3.76	3.83	3.45
Pani Shingada, Pani Phol (Water Chestnut)	3.65	7.3	3.65	4.86
Potol (Pointed Gourd)	3.31	6.06	5	4.76

List of Foods by Food Group (Tonto Block)	Average Price Per 100g (INR)			
	Rabi	Zaid	Kharif	Annual Average
Pundi Mula (Radish, white, root and leaves, raw)	1.63	2.12	1.97	1.9
Pyaji (Onion)	13.71	8.28	7.83	9.94
Saru Danti (Colocasia Stem)	2.66	2.66	5.33	3.55
Saru Patta, Pechki Saag (Colocasia leaves, green)	2.41	2.41	2.41	2.41
Seera Juni, Tarai (Gourd, ridge)	2.98	2.98	5.96	3.97
Serso Aa, Mani Aa (Mustard leaves)	2	2.57	2.5	2.35
Shimla Mirch, Shimla Marchi (Capscicum, green)	5.54	6.15	8.31	6.67
Tote, Leper Aa, Jinga Leper Aa (Amaranth Leaves, green/red/mix/spined)	1.83	2.68	2.35	2.29
Fruit and fruit products				
Anaar (Pomegranate, ripe, with seed)	13.29	15.12	18.59	15.67
Ananas (Pineapple, ripe)	14.16	20.85	20.85	18.62
Berel Phonso (Jackfruit, Unripe)	3.9	3.9	3.9	3.9
Dambhao, Mandal (Custard Apple)	2.54	5.08	2.6	3.57
Gota Jojo (Tamarind)	28.15	33.69	42	34.62
Hende Angur (Grapes, Black)	16.94	17.98	13.71	16.21
Huding Seb (Apple, Small)	9.38	12.72	12.15	11.42
Jhenga Amrud, Laal Amrud (Guava, green)	3.59	5.71	3.4	4.23
Khejur, Kita (Dates, processed)	73.53	74.46	73.53	73.84
Kishmish (Raisin)	36.79	37.06	36.02	36.62
Maram Bakhra (Jujube)	3.15	3.03	4.68	3.62
Mata Belati (Tomato, ripe)	2.9	3.33	3.28	3.17
Mata Bindi (Papaya, ripe)	3.04	4.28	3.97	3.76
Mata Kadal (Banana, ripe)	4.98	5.29	5.15	5.14
Merel Joh, Amla (Gooseberry)	12.68	12.04	12.04	12.36
Nariyal Dah (Coconut, water)	5.32	5.8	5.33	5.48
Nariyal (Coconut, kernel fresh)	6.68	6.61	7.18	6.82
Patarong Angur (Grapes, pale green)	15.78	16.88	12.96	15.21
Pundi Amrud (Guava, white)	2.37	3.57	2.42	2.79
Ro Khejur, Ro Kita (Dates, dried, pale brown)	9.34	12.46	8.96	10.25
Ro Nariyal (Coconut, dried)	4.76	6.11	4.92	5.26
Santra (Orange)	2.77	3.3	3.39	3.13
Seb (Apple)	12.34	12.16	14.68	13.06
Suti Jojo (Tamarind, pulp, sweet, ripe)	9	15	18.27	14.09
Oils and fats				
Badam Sunum (Oil, peanut)	9.14	9.63	8.8	9.19

List of Foods by Food Group (Tonto Block)	Average Price Per 100g (INR)			
	Rabi	Zaid	Kharif	Annual Average
Joto Bindi Sunum (Oil, castor)	47.72	81.05	45.87	58.21
Serso Sunum (Oil, mustard)	15.66	15.02	13.93	14.87
Soyabean Sunum (Oil, soybean)	10.01	9.09	9.09	9.39
Sugars and confectionary				
Biscuit Namkeen (Biscuits, salty)	9.57	10.24	10.6	10.14
Chini (Sugar, white)	6.48	6.93	7.32	6.91
Gur Danda (Sugarcane)	1.78	2.08	1.59	1.8
Gur (Jaggery, sugarcane, solid)	4.87	5.55	4.87	5.1
Herbs, spices and condiments				
Ada, Adrak (Ginger root, raw)	24.27	27.97	26.33	26.19
Bulunc (Salt)	1.53	1.76	1.5	1.6
Dhaniya Gunda (Coriander leaf, powder)	13.08	15.57	14.73	14.46
Dhaniya Jhang (Coriander, seeds)	15.44	18.19	18.13	17.25
Dhaniya Patta (Coriander leaf, raw)	25.24	47.82	28.28	33.78
Elaichi (Cardamom, seeds)	211.95	234.42	228.27	224.88
Gol ki, Goti Marchi (Pepper, black)	60.11	72.92	64.54	65.86
Gota Marchi (Chilli, green, raw)	23.78	24.36	23.8	23.98
Jaiphol (Nutmeg, dried)	201.55	201.55	201.55	201.55
Jeera (Cumin, seeds)	39.42	40.26	37.54	39.07
Jhenga Roh Marchi (Chilli, red, dry)	30.67	31.14	27.84	29.88
Lal Marchi Gunda (Chilli powder, red)	20.9	19.96	18.97	19.94
Laung (Cloves, dried)	81.2	81.2	81.2	81.2
Limbu (Lemon or lime)	10.34	13.14	10.73	11.4
Methi Jhang (Fenugreek, seeds)	16.61	21.46	26.24	21.44
Navgot Limbu (Lime, sweet)	9.37	16.24	13.52	13.04
Poshto (Poppy, seeds)	75.93	60.71	56.32	64.32
Rasui, Lehsun (Garlic, raw)	20.39	24.11	19.19	21.23
Sasang (Turmeric, dried)	18.82	21.5	19.41	19.91
Saunf Jhang (Fennel, seeds)	17.62	19.7	194.71	19.01
Serso Jhang (Mustard, seeds)	14.41	14.8	16.32	15.17
Tej Patta (Bay leaf, dried)	17.23	18.44	16.37	17.34
Beverages				
Hadiya (Rice Beverage)	0.83	1.27	0.77	0.96

Annex 5: Annual diet summary: the edible weight and cost of the foods selected for the family for the whole year for EO diet

The edible weight and cost of the foods selected for the family for the whole year for an energy only diet with the percentage contributed by each food in terms of weight, cost, energy, protein and fat, the percentage contribution of each food for eight vitamins and four minerals and the percentage of the total target met for each nutrient, averaged across the seasons in the Chaibasa livelihood zone

Food List	Quantity (Kg)	% quantity	Cost ( )	% cost	% energy	% protein	% fat	% vit A	% vit C	% vit B1	% vit B2	% niacin	% vit B6	% folic acid	% vit B12	% calcium	% iron	% zinc
Breast milk	194	15.2	0	0.0	2.8	2.4	6.1	100.0	47.8	1.5	8.6	1.2	0.3	3.0	100.0	26.2	0.0	1.1
Ro Nariyal (Coconut, dried)	141	11.0	8 966	24.1	22.5	10.9	75.8	0.0	52.2	7.1	7.2	4.8	2.3	13.3	0.0	19.1	41.8	14.6
Usna Chawal (Rice, parboiled, milled,)	945	73.8	28 257	75.9	74.6	86.7	18.2	0.0	0.0	91.5	84.2	94.0	97.4	83.7	0.0	54.7	58.2	84.3
Total	1 280	100	37 223	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
% target met					100	114	114	8	17	127	35	241	232	74	4	10	28	166

The edible weight and cost of the foods selected for the family for the whole year for an energy only diet with the percentage contributed by each food in terms of weight, cost, energy, protein and fat, the percentage contribution of each food for eight vitamins and four minerals and the percentage of the total target met for each nutrient, averaged across the seasons in the Tonto livelihood zone

Food List	Quantity (Kg)	% quantity	Cost ( )	% cost	% energy	% protein	% fat	% vit A	% vit C	% vit B1	% vit B2	% niacin	% vit B6	% folic acid	% vit B12	% calcium	% iron	% zinc
Breast milk	194	17.7	0	0.0	2.8	3.0	3.3	100.0	29.1	1.6	11.2	2.1	0.5	3.9	100.0	20.9	0.0	1.2
Dehati chawal (Rice, Brown, raw)	496	45.1	12 798	41.9	39.4	56.2	4.7	0.0	0.0	72.0	57.2	63.2	73.5	46.7	0.0	40.9	36.3	52.8
Ro Nariyal (Coconut, dried)	316	28.8	15 297	50.1	50.5	30.3	91.1	0.0	70.9	16.9	20.9	18.5	9.2	38.7	0.0	34.0	60.0	36.7
Usna Chawal (Rice, parboiled, milled,)	93	8.4	2 467	8.1	7.3	10.6	1.0	0.0	0.0	9.6	10.7	16.1	16.7	10.7	0.0	4.3	3.7	9.3
Total	1 099	100	30 562	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
% target met					100	91	212	8	28	120	27	139	133	57	4	13	43	148

Save the Children

Annex 6: Annual diet summary: the edible weight and cost of the foods selected for the family for the whole year for MAC diet

The edible weight and cost of the foods selected for the family for the whole year for a macronutrients diet with the percentage contributed by each food in terms of weight, cost, energy, protein and fat, the percentage contribution of each food for eight vitamins and four minerals and the percentage of the total target met for each nutrient, averaged across the seasons in the Chaibasa livelihood zone

Food List	Quantity (Kg)	% quantity	Cost ( )	% cost	% energy	% protein	% fat	% vit A	% vit C	% vit B1	% vit B2	% niacin	% vit B6	% folic acid	% vit B12	% calcium	% iron	% zinc
Breast milk	194	14.5	0	0.0	2.8	2.3	6.1	100.0	40.8	1.4	8.2	1.2	0.2	3.0	100.0	25.7	0.0	1.1
Gora Lupu (Wheat, flour, local or hyv)	20	1.5	729	2.0	1.5	3.2	0.3	0.0	0.0	2.6	4.6	2.7	1.0	1.1	0.0	3.2	4.7	2.7
Ro Nariyal (Coconut, dried)	139	10.4	8 812	23.7	22.2	10.5	75.4	0.0	43.7	6.9	6.7	4.6	2.3	13.1	0.0	18.4	39.9	14.2
Sara Danti (Colocasia Stem)	57	4.3	0	0.0	0.3	0.5	0.2	0.0	15.5	0.4	2.7	0.1	0.6	0.0	0.0	0.0	0.0	0.0
Usna Chawal (Rice, parboiled, milled)	927	69.3	27 704	74.4	73.1	83.5	18.0	0.0	0.0	88.7	77.8	91.3	95.8	82.7	0.0	52.8	55.4	82.0
Total	1 337	100	37 246	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
% target met					100	117	113	8	20	129	37	265	231	73	4	10	28	167

The edible weight and cost of the foods selected for the family for the whole year for a macronutrients diet with the percentage contributed by each food in terms of weight, cost, energy, protein and fat, the percentage contribution of each food for eight vitamins and four minerals and the percentage of the total target met for each nutrient, averaged across the seasons in the Tonto livelihood zone

Food List	Quantity (Kg)	% quantity	Cost ( )	% cost	% energy	% protein	% fat	% vit A	% vit C	% vit B1	% vit B2	% niacin	% vit B6	% folic acid	% vit B12	% calcium	% iron	% zinc
Breast milk	194	15.6	0	0.0	2.0	2.5	5.3	100.0	42.7	1.1	8.8	1.7	0.4	3.6	100.0	18.7	0.0	1.1
Dehati chawal (Rice, brown, raw)	841	67.7	21 846	68.9	66.8	75.4	12.9	0.0	0.0	89.1	76.6	84.8	92.4	73.6	0.0	63.1	63.0	77.8
Gora Lupu (Wheat, flour, local or hyv)	15	1.2	466	1.5	1.2	2.5	0.2	0.0	0.0	1.5	3.8	2.9	1.0	1.0	0.0	1.8	2.4	3.0
Ro Nariyal (Coconut, dried)	174	14.0	8 911	28.1	27.7	13.9	81.3	0.0	57.3	6.8	9.0	8.1	3.7	19.8	0.0	16.7	33.8	17.5
Usna Chawal (Rice, parboiled, milled)	19	1.5	495	1.6	1.5	1.8	0.3	0.0	0.0	1.4	1.7	2.6	2.5	2.0	0.0	0.8	0.8	1.6
Total	1 243	100	31 718	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
% target met					100	111	131	8	19	164	35	176	179	61	4	14	42	170

Annex 7: Annual diet summary: the edible weight and cost of the foods selected for the family for the whole year for NUT diet

The edible weight and cost of the foods selected for the family for the whole year for a nutritious diet with the percentage contributed by each food in terms of weight, cost, energy, protein and fat, the percentage contribution of each food for eight vitamins and four minerals and the percentage of the total target met for each nutrient, averaged across the seasons in the Chaibasa livelihood zone

Food List	Quantity (Kg)	% quantity	Cost ( )	% cost	% energy	% protein	% fat	% vit A	% vit C	% vit B1	% vit B2	% niacin	% vit B6	% folic acid	% vit B12	% calcium	% iron	% zinc
Akhrot (Walnuts)	27	1.3	1 934	3.1	4.1	3.8	12.0	0.0	0.1	3.0	0.8	1.5	1.8	1.7	0.0	1.3	1.7	2.9
Breast milk	191	9.1	0	0.0	2.8	1.9	5.6	3.4	2.5	1.0	1.3	1.1	0.2	1.1	4.3	2.6	0.0	0.8
Ghonga (Snail)	4	0.2	318	0.5	0.1	0.4	0.1	0.0	0.0	0.1	0.3	0.2	0.0	0.0	11.7	0.0	1.3	3.4
Gom Lupu (Wheat, flour, local or hyv)	10	0.5	315	0.5	0.7	1.2	0.1	0.0	0.0	0.9	0.4	1.2	0.4	0.2	0.0	0.2	0.5	1.0
Ipil Aa, Pundi Ipil, Jhenga Ipil (Gogu leaves, red/green)	591	28.7	14 105	22.5	5.1	15.4	1.1	44.4	63.7	24.7	53.0	9.7	23.3	44.1	0.0	60.1	31.6	18.4
Kudrum (Roselle)	286	13.9	11 623	18.6	2.6	7.5	0.5	21.5	30.4	12.0	25.3	4.7	10.7	21.5	0.0	29.2	15.1	8.9
Maron Mayom (Goat, blood, coagulated)	5	0.3	486	0.8	0.1	1.0	0.1	0.0	0.7	0.1	0.2	0.5	0.0	0.0	4.7	0.0	12.8	0.4
Ra Nariyal (Coconut, dried)	130	6.3	8 251	13.2	20.8	8.0	64.9	0.0	2.5	4.5	1.0	4.1	1.6	4.3	0.0	1.7	8.1	9.9
Sukuri Kaleja (Pork, liver, raw)	13	0.7	1 811	2.9	0.4	2.7	0.4	30.6	1.1	0.9	7.9	2.8	1.2	1.8	79.3	0.1	20.5	2.7
Usna Chawal (Rice, parboiled, milled)	798	38.8	23 792	38.0	63.0	58.1	14.3	0.0	0.0	53.0	10.9	74.1	61.9	25.1	0.0	4.6	10.4	52.6
Total	2 058	100	62 636	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
% target met					100	144	122	224	328	186	229	261	309	208	100	100	130	225

Save the Children

The edible weight and cost of the foods selected for the family for the whole year for a nutritious diet with the percentage contributed by each food in terms of weight, cost, energy, protein and fat, the percentage contribution of each food for eight vitamins and four minerals and the percentage of the total target met for each nutrient, averaged across the seasons in the Tonto livelihood zone

Food List	Quantity (Kg)	% quantity	Cost ( )	% cost	% energy	% protein	% fat	% vit A	% vit C	% vit B1	% vit B2	% niacin	% vit B6	% folic acid	% vit B12	% calcium	% iron	% zinc
Bah Kobi Patta (Leaf, collard greens)	20	1.2	1 067	2.3	0.2	0.8	0.1	1.7	1.2	0.3	1.2	0.4	0.6	3.0	0.0	3.3	0.2	0.3
Breast milk	194	11.4	0	0.0	3.8	1.9	5.2	2.2	0.9	0.9	2.0	1.4	0.2	1.3	4.3	2.6	0.0	0.9
Dehati chawal (Rice, brown, raw)	773	45.3	20 091	42.5	61.4	56.8	11.7	0.0	0.0	60.3	16.2	65.6	46.5	24.7	0.0	8.0	23.6	53.3
Ghonga (Snail)	12	0.7	1 421	3.0	0.3	1.3	0.2	0.0	0.1	0.2	0.9	0.9	0.1	0.1	39.9	0.1	5.5	9.8
Gom Lupu (Wheat, flour, local or hyv)	4	0.2	120	0.3	0.3	0.5	0.1	0.0	0.0	0.3	0.2	0.6	0.1	0.1	0.0	0.1	0.3	0.5
Ipil Aa, Pandi Ipil, Jhenga Ipil (Gogu leaves, red/green)	15	0.8	490	1.0	0.1	0.4	0.0	0.6	0.5	0.5	1.8	0.3	0.5	1.2	0.0	1.4	0.9	0.5
Meron Mayom (Goat, blood, coagulated)	10	0.6	974	2.1	0.3	1.9	0.2	0.0	0.5	0.1	0.7	1.4	0.0	0.0	9.1	0.0	26.0	0.9
Mula Aa (Radish leaves)	165	9.6	3 300	7.0	1.2	3.0	0.8	5.8	13.4	3.1	4.4	4.5	3.5	5.2	0.0	11.6	7.7	3.3
Muiga Aa (Drumstick leaves)	314	18.4	8 489	17.9	5.1	19.8	3.9	77.9	81.8	19.0	62.2	13.9	44.4	51.4	0.0	66.4	4.4	2.0
Ro Nariyal (Coconut, dried)	167	9.8	8 521	18.0	26.6	10.4	76.7	0.0	1.2	5.4	7.0	6.5	7.0	6.9	0.0	3.3	12.2	14.8
Saunf Jhang (Fennel, seeds)	6	0.4	1 162	2.5	0.5	0.9	0.8	0.0	0.0	0.6	0.6	1.2	0.3	0.0	0.0	3.5	1.7	0.9
Sukuri Kaleja (Pork, liver, raw)	8	0.5	995	2.1	0.2	1.6	0.2	11.7	0.2	0.5	7.2	2.1	0.6	1.3	46.7	0.0	15.3	1.9
Tej Patta (Bay leaf, dried)	2	0.1	304	0.6	0.1	0.1	0.1	0.1	0.1	0.0	0.2	0.1	0.3	0.2	0.0	0.7	1.2	0.2
Usna Chawal (Rice, parboiled, milled)	10	0.6	277	0.6	0.8	0.8	0.2	0.0	0.0	0.7	0.2	1.2	0.8	0.4	0.0	0.1	0.2	0.8
Total	1 708	100	47 279	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
% target met					100	143	133	347	809	196	150	210	327	167	100	100	100	192

Annex 8: Annual diet summary: the edible weight and cost of the foods selected for the family for the whole year for FHAB diet

The edible weight and cost of the foods selected for the family for the whole year for a food habits nutritious diet with the percentage contributed by each food in terms of weight, cost, energy, protein and fat, the percentage contribution of each food for eight vitamins and four minerals and the percentage of the total target met for each nutrient, averaged across the seasons in the Chaibasa livelihood zone

Food List	Quantity (Kg)	% quantity	Cost ( )	% cost	% energy	% protein	% fat	% vit A	% vit C	% vit B1	% vit B2	% niacin	% vit B6	% folic acid	% vit B12	% calcium	% iron	% zinc
Aloo, Potato (Potato)	268	9.8	8 743	11.0	5.6	3.5	0.2	0.0	7.4	9.1	1.7	7.6	12.8	2.1	0.0	0.6	0.2	2.7
Baal Jo (Bael Fruit)	49	1.8	0	0.0	1.2	0.9	0.1	0.0	1.2	0.5	0.3	0.8	0.3	0.1	0.0	1.0	0.0	0.4
Bah Kobi Patta (Leaf, collard greens)	69	2.5	3 625	4.5	0.5	1.3	0.4	9.4	5.1	1.1	2.9	0.8	1.9	7.5	0.0	7.6	0.1	0.5
Bai Jo, Barga ka Phol (Banyan fruit)	66	2.4	0	0.0	1.1	0.9	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Breast milk	290	10.6	0	0.0	4.3	2.0	9.8	8.0	2.5	1.9	3.3	1.9	0.4	2.1	4.6	3.9	0.0	1.2
Bulung (Salt)	2	0.1	24	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Chana (Bengal gram, whole)	107	3.9	8 184	10.3	8.4	14.1	5.6	0.2	0.0	9.9	9.3	7.8	9.2	16.9	0.0	10.4	1.5	9.6
(Free, Bengal dayflower)	264	9.6	0	0.0	19.1	13.8	47.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
(Free, Cholai Leaf)	243	8.9	0	0.0	18.2	30.3	5.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1
(Free, Cockscomb)	285	10.4	0	0.0	15.1	9.5	2.7	7.5	35.7	7.9	0.0	0.0	0.0	0.0	0.0	24.4	140.6	69.4
(Free, Spider Plant)	244	8.9	0	0.0	0.9	4.7	0.0	0.0	6.9	0.0	0.0	0.0	0.0	10.5	0.0	0.2	73.0	3.5
(Free, Spiny Coriander)	262	9.6	0	0.0	20.9	11.1	5.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.4	9.0	9.7
(Free, Vegetable fern)	286	10.5	0	0.0	0.0	6.7	2.6	0.0	14.8	0.0	0.0	0.0	0.0	0.0	0.0	7.1	14.8	0.0
(Free, Wild Mustard, Spiderplant)	286	10.5	0	0.0	0.0	10.4	0.0	0.0	123.9	0.0	0.0	0.0	0.0	0.0	0.0	120.9	222.0	0.0
Ghonga (Snail)	11	0.4	1 022	1.3	0.2	0.8	0.3	0.1	0.1	0.3	0.9	0.7	0.1	0.1	26.1	0.1	0.5	7.3
Gom Lupu (Wheat, flour, local or hrv)	34	1.2	1 116	1.4	2.6	3.0	0.6	0.0	0.0	3.8	2.1	4.7	1.7	0.9	0.0	0.6	0.2	3.3
Gota Marchi (Chilli, green, raw)	< 1	0.0	125	0.2	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Iail Aa, Pundi Iail, Jhenga Iail (Gourd leaves, red/green)	211	7.7	5 048	6.3	1.9	3.8	0.4	25.0	14.8	11.1	30.6	3.8	10.1	21.0	0.0	21.6	1.4	6.4
Katom, Kakda (Crab, fresh water)	43	1.6	0	0.0	0.9	4.7	0.7	3.3	0.1	0.4	0.3	4.0	0.7	0.1	9.3	0.6	0.8	2.0
Korbonga (Carambola, star fruit)	90	3.3	0	0.0	0.6	0.6	0.3	0.1	6.6	0.4	0.5	0.5	0.2	0.9	0.0	0.1	0.0	0.4
Kuchita haku (Eel, river)	35	1.3	0	0.0	1.5	4.4	3.7	17.7	0.0	1.5	0.5	3.8	0.3	0.2	13.5	0.4	0.1	2.0
Kudrum (Roselle)	93	3.4	3 763	4.7	0.8	1.7	0.2	10.9	6.5	4.9	13.4	1.7	4.4	9.2	0.0	9.5	0.6	2.8
Limbu (Lemon or lime)	< 1	0.0	156	0.2	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Marang Icha haku, chingri bada (Prawn, giant river, raw)	43	1.6	0	0.0	1.0	5.9	0.8	0.1	0.0	0.0	0.0	0.0	0.0	0.0	24.4	0.4	0.2	1.8
Masoori Dali (Lentil, dal)	16	0.6	1 904	2.4	1.1	2.8	0.1	0.0	0.0	3.8	0.7	1.5	0.9	0.5	0.0	0.2	0.1	2.1
Mata Belati (Tomato, ripe)	50	1.8	1 859	2.3	0.2	0.3	0.1	1.2	2.0	0.9	0.8	0.5	0.6	0.6	0.0	0.1	0.0	0.2
Mata Kadal (Banana, ripe)	42	1.5	7 128	8.9	0.9	0.3	0.2	0.1	0.8	0.6	1.3	0.4	3.9	0.7	0.0	0.1	0.0	0.3
Mulga Aa (Drumstick leaves)	9	0.3	841	1.1	0.1	0.4	0.1	5.1	4.0	0.7	1.8	0.3	1.6	1.5	0.0	1.8	0.0	0.0
Pui Aa (Basella leaves)	10	0.4	270	0.3	0.0	0.1	0.0	2.1	2.1	0.2	0.5	0.1	0.4	1.2	0.0	0.5	0.0	0.1
Piaji (Onion)	40	1.5	3 999	5.0	0.4	0.4	0.1	0.0	0.4	0.5	0.3	0.3	0.8	0.5	0.0	0.4	0.0	0.3
Ro Narial (Coconut, dried)	88	3.2	5 575	7.0	14.0	3.8	50.8	0.0	1.1	3.8	1.1	3.0	1.4	3.9	0.0	1.2	0.7	6.5
Santra (Orange)	42	1.5	7 433	9.3	0.4	0.2	0.0	0.1	4.7	1.2	0.5	0.3	0.4	1.1	0.0	0.8	0.0	0.1
Sarso Aa, Mani Aa (Mustard leaves)	59	2.1	2 388	3.0	0.2	0.9	0.1	4.9	3.1	0.7	1.1	0.7	1.0	3.6	0.0	2.1	0.1	0.4
Sim Jharom Poultry (Egg, chicken, farmed, raw)	6	0.2	625	0.8	0.2	0.5	0.4	0.5	0.0	0.3	0.7	0.3	0.1	0.2	2.4	0.0	0.1	0.4
Sim Kaleja (Chicken, liver, raw)	5	0.2	811	1.0	0.1	0.5	0.2	9.0	0.0	0.5	2.9	0.7	0.7	2.5	13.8	0.0	0.4	0.4
Ud, Chhatu, Kukhdi, Rugda (Mushroom, white or brown)	94	3.4	0	0.0	0.6	1.3	0.4	0.0	0.8	2.0	9.1	7.5	1.5	1.4	0.0	0.3	0.3	2.8
Uri Toa, Gai ka doodh (Milk, cow, whole fat, pasteurised, UHT)	39	1.4	1 666	2.1	0.5	0.8	1.2	0.7	0.2	0.7	3.4	0.4	0.3	0.3	5.8	1.9	0.0	0.6
Usna Chawal (Rice, parboiled, milled.)	450	16.4	13 374	16.8	35.5	22.8	9.3	0.0	0.0	37.6	10.1	45.8	44.3	18.7	0.0	2.6	0.7	28.7
Total	4 232	155	79 680	100	159	169	151	106	245	106	100	100	100	108	100	225	468	166
% target met					100	207	106	143	496	148	140	238	243	157	137	100	1 052	232

The edible weight and cost of the foods selected for the family for the whole year for a food habits nutritious diet with the percentage contributed by each food in terms of weight, cost, energy, protein and fat, the percentage contribution of each food for eight vitamins and four minerals and the percentage of the total target met for each nutrient, averaged across the seasons in the Tonto livelihood zone

Food List	Quantity (Kg)	% quantity	Cost ()	% cost	% energy	% protein	% fat	% vit A	% vit C	% vit B1	% vit B2	% niacin	% vit B6	% folic acid	% vit B12	% calcium	% iron	% zinc
Aloo, Potato (Potato)	46	2.0	1 247	2.0	1.0	0.7	0.0	0.0	0.9	1.5	0.3	1.4	1.9	0.4	0.0	0.1	0.0	0.5
Bael Jo (Bael Fruit)	49	2.1	0	0.0	1.2	1.1	0.1	0.0	0.8	0.4	0.3	0.9	0.3	0.1	0.0	1.0	0.0	0.5
Bah Kobi Patta (Leaf, collard greens)	91	3.9	3 282	5.3	0.7	2.1	0.5	7.3	4.9	1.4	4.0	1.1	2.2	10.7	0.0	10.1	0.1	0.8
Band Kobi, Gobhi (Cabbage, green)	69	3.0	3 205	5.2	0.3	0.5	0.2	0.1	2.1	1.2	1.4	0.5	1.1	1.3	0.0	1.0	0.0	0.3
Breast milk	287	12.4	0	0.0	4.2	2.3	10.1	4.6	1.7	1.8	3.4	2.0	0.4	2.2	5.5	3.9	0.0	1.4
Chana (Bengal gram, whole)	107	4.6	8 959	14.6	8.4	16.6	5.8	0.1	0.0	9.5	9.7	8.6	8.1	18.2	0.0	10.4	1.5	11.3
Dehati chawal (Rice, Brown, raw)	310	13.4	8 026	13.0	24.6	18.5	6.1	0.0	0.0	35.0	7.3	25.5	22.3	11.4	0.0	3.2	0.9	24.7
(Free, Benghal dayflower)	53	2.3	0	0.0	3.8	3.3	9.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
(Free, Choay Leaf)	42	1.8	0	0.0	3.1	6.2	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
(Free, Cockscomb)	57	2.5	0	0.0	3.0	2.3	0.6	0.9	5.1	1.5	0.0	0.0	0.0	0.0	0.0	4.9	27.9	16.4
(Free, Marsilea minuta Linn)	57	2.5	0	0.0	0.6	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	3.8	0.0
(Free, Spider Plant)	50	2.2	0	0.0	0.2	1.2	0.0	0.0	1.0	0.0	0.0	0.0	0.0	2.3	0.0	0.0	14.8	0.9
(Free, Spiny Coriander)	52	2.2	0	0.0	4.1	2.6	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	1.8	2.2
(Free, Vegetable fern)	57	2.5	0	0.0	0.0	1.6	0.5	0.0	2.1	0.0	0.0	0.0	0.0	0.0	0.0	1.4	2.9	0.0
(Free, Wild Mustard, Spiderplant)	54	2.4	0	0.0	0.0	2.3	0.0	0.0	16.9	0.0	0.0	0.0	0.0	0.0	0.0	22.9	41.8	0.0
Ghonga (Snail)	6	0.3	748	1.2	0.1	0.6	0.2	0.0	0.0	0.2	0.6	0.5	0.0	0.1	18.4	0.0	0.3	5.0
Korbonga (Carambola, star fruit)	90	3.9	0	0.0	0.6	0.7	0.3	0.1	4.7	0.4	0.5	0.5	0.2	1.0	0.0	0.1	0.0	0.4
Masoori Dal (Lentil, dal)	7	0.3	484	0.8	0.5	1.4	0.0	0.0	0.0	1.5	0.3	0.7	0.3	0.2	0.0	0.1	0.1	1.0
Mata Belati (Tomato, ripe)	23	1.0	763	1.2	0.1	0.2	0.1	0.3	0.7	0.4	0.4	0.3	0.3	0.3	0.0	0.1	0.0	0.1
Mata Kadal (Banana, ripe)	42	1.8	3 124	5.1	0.9	0.3	0.2	0.1	0.6	0.6	1.4	0.5	3.4	0.7	0.0	0.1	0.0	0.3
Motora Chana (Pea, dry)	9	0.4	682	1.1	0.6	1.4	0.2	0.0	0.0	1.3	0.4	0.8	0.1	0.3	0.0	0.3	0.1	1.2
Mulga Aa (Drumstick leaves)	159	6.9	4 274	6.9	2.6	8.2	2.6	55.8	53.3	12.3	35.4	6.8	27.0	29.9	0.0	33.6	0.2	1.0
Pyaj (Onion)	44	1.9	4 929	8.0	0.4	0.5	0.1	0.0	0.3	0.5	0.3	0.4	0.8	0.6	0.0	0.5	0.0	0.3
Santra (Orange)	42	1.8	1 916	3.1	0.4	0.3	0.0	0.1	3.4	1.1	0.6	0.3	0.4	1.2	0.0	0.8	0.0	0.2
Saunf Jhang (Fennel, seeds)	1	0.1	248	0.4	0.1	0.2	0.2	0.0	0.0	0.2	0.2	0.3	0.1	0.0	0.0	0.8	0.0	0.2
Serso Sunum (Oil, mustard)	58	2.5	8 646	14.0	11.8	0.0	52.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
Sukuri Kaleja (Pork, liver, raw)	15	0.6	1 844	3.0	0.4	2.4	0.5	30.6	0.6	1.2	15.0	3.7	1.4	2.9	76.0	0.1	2.8	3.4
Tej Patta (Bay leaf, dried)	< 1	0.0	17	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Tota, Leper Aa, Jingа Leper Aa (Amaranth Leaves, green/red/mix/spined)	5	0.2	123	0.2	0.0	0.0	0.0	0.0	0.3	0.0	0.3	0.0	0.0	0.0	0.0	0.3	0.0	0.1
Ud, Ohtato, Kukhdi, Rugda (Mushroom, white or brown)	107	4.6	0	0.0	0.6	1.8	0.5	0.0	0.6	2.2	10.8	9.4	1.5	1.8	0.0	0.3	0.3	3.8
Uara Chawal (Rice, parboiled, milled)	320	13.9	9 055	14.7	25.3	19.2	6.9	0.0	0.0	25.7	7.6	35.8	28.1	14.4	0.0	1.8	0.5	24.0